QUARTERLY

THE ALLERGY AND ENVIRONMENTAL HEALTH ASSOCIATION

INSIDE...

EDITORS' MESSAGE

We were very saddened by the College of Physicians and Surgeons of Ontario (CPSO) decision to lay charges of professional misconduct and incompetence against Dr Krop in the Fall of 1994. Dr. Krop has practiced conventional and environmental medicine for over 14 years in the Toronto area. He has helped thousands of patients - many of whom were not able to get help from other doctors. He has successfully treated about 80% of these hard-to-treat, chronically ill patients.

Dr. Krop is a member of the Canadian Society for Environmental Medicine and a Fellow of the American Academy of Environmental Medicine, training for which is accredited by the American Medical Association.

The extensive list of allegations against Dr. Krop, based on six patient files selected by CPSO investigators, are based on his use of the following therapies:

- Vitamin and mineral supplementation to strengthen the immune system
- Diagnosis and treatment of food sensitivities
- Diagnosis and treatment of inhalant allergies
- Diagnosis and treatment of chemical sensitivities and intoxication with solvents and pesticides
- Nutritional counselling and diet modification
- Prescribed use of water and air purifiers in home and work environments
- Considered referrals to acupuncture therapy

It almost seems that Dr. Krop was charged because he did not prescribe drugs. Instead he successfully used treatments which assist the body to heal itself. (In this issue, we have a book review on La Mafia Medicale which discussed the collusion between our health care system and the drug companies.)

This case is similar to a recent one in Nova Scotia. Drs. LaValley and Baker were brought before the Discipline Subcommittee of the Nova Scotia Medical Board because they sometimes used treatments like electro acupuncture, homeopathy and nutritional medicine which were not yet considered part of "conventional medicine" in Nova Scotia. Fortunately, as a result of massive public outcry, the charges were dropped.

Since then, the Nova Scotia Medical Society voted to establish a Complementary Medicine Section for physicians practicing alternative or complementary therapies. These include such treatments as acupuncture, homeopathy, nutrition and counselling, environmental medicine, electro acupuncture, vitamin and mineral supplementation. It is the first time any medical association in Canada has agreed to establish such a group.

In the Fall of 1994, Nova Scotia announced it would fund the development of an environmental health clinic (see our Medical Update section for details). In addition, Nova Scotia is drafting legislation to further protect patients and doctors.

Several states in the US have now passed legislation that specifically permits the use of complementary techniques. In June, 1990, Alaska Bill 146 became law. It included this statement:

> "The Health disciplinary board may not base a finding of professional incompetence solely on the basis that a licensee's practice is unconventional or experimental in the absence of demonstrable physical harm to the patient".

This is the kind of legislation we need in each Canadian province to protect our right to get treatments that assist the body to heal.

We need your help. Write , fax or phone your MPP about the Alaska clause and the plight of Dr. Krop. Write your Minister of Health.

If you want to help Dr. Krop further, contact Citizens for Choice in Health Care. Tel.: (905) 826-9384, Fax: (905) 895-5621. Or Write CCHC, 128 Queens Street South, Box 42264, Mississauga, Ontario L5M 4Z0.

Betty Auslander/Marianne Bertrand

THE QUARTERLY

CO-EDITORS
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Marianne Bertrand

The AEHA Quarterly publishes scientific and personal material reflecting the needs and interests of people with environmentally related illnesses. The Quarterly does not offer medical advice. People wishing to experiment with changes in their lifestyles should consult a physician.

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THE ASSOCIATION

The Allergy and Environmental Health Association of Canada is a non profit, registered charity.

The Association's mandate is to increase awareness of environmentally related illnesses, stressing recognition, prevention, and treatment, and to advocate for fair and equitable treatment of affected persons.

The AEHA has branches across Canada.

ENVIRONMENTAL SENSITIVITIES

A growing segment of the population experience a variety of adverse reactions to environmental agents at levels well below those that might be deemed to affect average persons. The atypical reactivity is called Environmental Sensitivity.

Subsections of Environmental Sensitivity include labels descriptive of the site of the reaction such as "Asthma" (lungs) or of the mechanism of the reaction such as "Allergy", or of the causative agents such as "Multiple Chemical Sensitivity" or "Electromagnetic Sensitivity".

Typical agents include food, water, airborne substances, electromagnetic fields, and materials typically encountered in our daily lives, including both physiological and psychological stressors.

Sensitivity is highly individualistic, affecting each individual in a unique way, making definition, diagnosis and treatment difficult. Severe sensitivity is called "Hypersensitivity" and in some extreme instances, where a person has a sudden attack called "Anaphylaxis", the condition can be fatal. Symptoms may be mild and merely annoying, or they can be severe enough to interfere with daily activities, family life and career.

Environmental sensitivity is a degenerative illness. Prevention, early detection and treatment are therefore of paramount importance in dealing with this illness. Treatment of Environmental Sensitivity focuses on prevention, prudent avoidance of offending agents, appropriate nutrition, counselling and medical intervention.

Environmental Sensitivity is a relatively new field and as such is subject to considerable variation in interpretation. Environmental Sensitivities have been officially acknowledged as legitimate and compensatable disorders by many governments, agencies and research establishments.

MEDICAL UPDATE

ENVIRONMENTAL HEALTH CLINICS

As you can see on our Professional Listings page, there are now five environmental health clinics/hospitals operating in the U.S. and Canada.

It was recently announced that Nova Scotia is putting up at least $1 million to build an Environmental Health Clinic in Fall River.

At this time, the only hospital-based environmental facility is at Tri-City Hospital in Dallas. Complete surgical and in-patient medical services are provided here for environmentally sensitive patients. The unit has 19 beds.

It is constructed using materials and furnishings which out-gas minimally. The walls and ceilings are tiled, plastered or made of porcelain-on-steel. The floors are usually terrazzo tile laid with non-toxic grout. The mattresses are made from layered cotton blankets. The furniture is either stainless steel or solid wood. The padding on the chairs is untreated cotton.

The air is highly filtered through both particulate and charcoal filters. The computer systems are contained within stainless steel boxes and the air from these boxes is evacuated through charcoal filters to remove the chemical substances which come off warm plastic and printed circuits.

Patients drink only pure water such as distilled or spring water bottled in glass. They consume only organic or less chemically contaminated food. No newspapers, pesticides, drink, perfumes, aftershaves, hairsprays or other scented or aromatic substances are allowed inside.

In such an environment, patients who have either classical allergy and/or chemical sensitivity can be isolated from environmental factors which may trigger their symptoms.

The evaluation of Chemical Sensitivity begins with a thorough environmental history and intradermal and inhalation testing.

"Patients are challenged, one at a time, to the foods and chemicals which are being investigated using intradermal tests or rotational diets.

Double-blind inhalant challenges are done in a totally sealed booth, with exposure to concentrations so low they are below the odour threshold. Water is used as a placebo control, and if a patient is de-adapted, reliable data can be obtained.

Patients can also be assessed with a binocular iris corder, developed by Hamamatsu Photonics in Japan. Patients are dark adapted (light de-adapted) for 15 minutes and a measured pulse of light is shone into their eye. A computer measures the contraction and recovery of the pupil in response, which is a precise assessment of the function of the autonomic nerve response. Measurements are made before and after double-blind inhalation challenges, and sometimes before and after intradermal challenges and electromagnetic challenges as well."[1]

Treatment of sensitivities usually involves: avoidance of pollutants, consuming only safe food & water, injection therapy.

In the 1970's and early 80's, treatment programs at Environmental Health Centre involved mainly avoidance. Later treatment began to include preservative free injections for foods and inhalants. Next, the nutrition program was stepped up with intervenous nutrition given at

higher and more frequent doses. The nutrition program also began to include giving oral amino acids if deficiencies were detected. Finally, heat therapy was provided in specially designed chambers - to sweat the pollutants out and to increase metabolism. A German method of oxygen therapy may soon be added.[2]

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1. Dr. Gerald Ross. "The Environmental Control Unit in Diagnosis" in Multiple Chemical Sensitivities and their Relevance to Psychiatric Disorders (Dec. 7, 1992 Workshop) available for free from Bureau of Chronic Disease Epidemiology, Laboratory Centre for Disease Control, Health Canada, Tunney's Pasture, Ottawa K1A 0L2.

2. Dr. William Rea, Question & Answer Session, Oct. 2, 1993.

DOCTOR WELL-SUITED TO DIRECT NEW CLINIC

When Dr. Roy Fox became too sick to work at the Camp Hill Medical Centre in 1991, the physician believed he would be off the job for a few weeks.

"I thought I could shake this off and go right back to work," Dr. Fox said of the overpowering nausea, headaches, muscle pain and weakness caused by environmental illness that forced him and more than 600 other workers at the Halifax health-care facility to leave their jobs.

After three years of dramatically altering his lifestyle and his home, travelling to Texas for treatments and trying to persuade politicians and doctors that the air in the Camp Hill hospital really made workers sick, Dr. Fox is now interim director of the first clinic in Canada set up to treat and research environmental illness.

Even though thousands of Canadians have been diagnosed as suffering from hypersensitivity due to prolonged exposure to chemicals trapped in poorly ventilated buildings, some physicians believe the condition is mostly in the mind of the sufferer.

Dr. Fox, who knows the frustration of not being able to work because his workplace makes him sick, said the provincial government's contribution of $1-million toward the new clinic indicates that environmental illness is finally being recognized as a serious health problem.

He said only a few doctors in Canada are trained to recognize and treat the illness. Many patients have become so hypersensitive to chemicals that one whiff of perfume or aftershave can trigger violent headaches, fainting and depression.

"It is really the controversy [over the existence of environmental illness] that has held things back," Dr. Fox said in an interview in Fall River, a scenic community outside Halifax where the new clinic will be established.

"What has brought it to a head here was the Camp Hill situation, with so many people suddenly rendered disabled and unable to work and really not getting much in the way of medical care."

Of the 600 Camp Hill workers who became ill, about 100 still cannot work at the facility, which has undergone more than $1-million worth of renovations to create a cleaner environment.

A part-time environmental health clinic set up at the Victoria General Hospital in dowtown Halifax four years ago has treated about 400 patients but has a waiting list of more than 800. Many patients have travelled to the Environmental Health Centre in Dallas, run by Dr. Gerald Ross, a specialist in environmental medicine who also runs the Halifax clinic.

Dr. Fox said the new clinic in Fall River, which should be operating in five months, will be built with inert materials and a special ventilation and air-filtration system.

There will be no wallpaper (glue can cause adverse reactions), no carpets (they can trap

moulds) or paint. Materials such as glass, plaster and tiles will be used. Those who work there will not wear perfumes, scented deodorants or even cloths that have been washed with detergents or fabric softeners.

"We will create a space that is environmentally clean, that will not perturb patients. They will feel safe in there," Dr. Fox said.

When patients are diagnosed as suffering from overexposure to chemicals, he said, they must drastically alter their homes and their diets. Patients with nutritional deficiencies receive vitamin supplements, and some undergo a process of detoxification - a sauna-type heat treatment and massage.

After three years of treatment, Dr. Fox said, he has learned to live with his condition. He stays away from gatherings where people might be wearing scented deodorants and perfumes, spends a limited time in airtight buildings and has changed his diet and his home to eliminate exposure to chemicals that could cause a relapse.

"As long as I am in a clean invironment, I feel fine," Dr. Fox said. "I still can't go back to the hospital without getting sick."

Written by Kevin Cox

Reprinted with pennission from *The Globe & Mail*, Nov. 8/94

DR. WILLIAM REA is a tireless speaker, researcher and medical practitioner in the advancement of environmental medicine. He is one of the principal physicians in the Environmental Health Centres in Dallas, Texas. He is author of two volumes on Chemical Sensitivity. On October 2, 1993, he participated in a question and answer session in California. What follows is a synopsis of some of the information he shared. (Cassettes of this session are available for $5.75 U.S. from Share, Care and Prayer, P.O. Box 2080, Frazier Park, California 93225):

Q. Can someone with environmental sensitivities ever get well?

A1. "We've done a 10-12 year follow-up and found that 85% of our patients get well; 10% do better but are not well; 6% do worse. Whether they get well or not seems to depend on how badly they were damaged."

A2. Patients can continue to be well if they live in safe areas. They will deteriorate in places like Southern California, Northern New Jersey and Iowa where pollution is high.

A3. "I've never seen a chemically sensitive patient get well living in gas or oil heat and I've seen 20,000 now."

Q. Is it necessary to rotate my food for the rest of my life?

A. It seems so. In our 11 year follow-up study, 25% did not rotate and did fine; 25% rotated all the time and had to: 50% became cavalier at times and then had to return to rotation to clear up problems that developed.

Q. How possible is it to alter a house to make it safe?

A. I have been involved in modifying 16,000 - 17,000 houses. Most are salvageable.

Q. Does Electro-Magnetic Field (EMF) Sensitivity exist?

A. A growing number of people are sensitive to items that use electricity like flourescent lights, hair dryers, microwave ovens, computers, T.V. sets, electric blankets, answering machines, water pipes, AM

radio. As with all sensitivities, symptoms vary depending on which target organ is involved. Examples include aches, pains, fuzzy head, sinus problems, skin problems, colon problems, heart irregularities.

Some people can clear up by living in a canyon where radio and TV signals cannot be picked up - usually out in West Texas or Idaho.

You can also help yourself by grounding yourself. Run around outside in bare feet for at least 1/2 hour each day. You can also put a copper bracelet around your leg and attach it to a metal pipe while you sleep at night.

Consider cutting off electricity to your bedroom at night. Most importantly, don't sleep with your head against a wall where electric wires are. Sleep with your head in the middle of the room.

Q. Are buried power lines preferable?

A. They can be a real problem. The buried lines can become part of a circuit with railway tracks or a water vein and result in changing magnetic fields.

ENVIRONMENTAL HORMONES: INADVERTENT BIRTH CONTROL?

Worldwide, measures of male fertility have decreased dramatically over the past fifty years,[1] while abnormalities of the male reproductive system have increased. Researchers[2] hypothesized in 1993 that synthetic estrogens, one type of environmental hormones (also called endocrine disrupters), were probably responsible for these "remarkable changes."[1] These fertility problems, however, have not bothered Danish organic farmers. A recent study found that male members of the Danish Organic Farmers' Association had high sperm densities, approximately double that of men who did not eat organically grown food.[3] While the researchers found their results "unexpected" and offered no hypotheses to explain them, their healthy fertility may be linked to reduced exposure to endocrine disrupters.

Just what are endocrine disrupters? Why are they getting so much press? Many of these chemicals have been released into our environment since the mid 1940s.[4] They elicit a broad spectrum of biologic and toxic effects, and many have chemical properties that lead to their persistence, widespread dispersal, and bioaccumulation. This means that they affect human and wildlife populations alike. Many endocrine disrupters are pesticides including 2,4-D, atrazine, benomyl, carbaryl, endosulfan, parathion, and synthetic pyrethroids.[4]

Problems caused by endrocrine disrupting chemicals were initially recognized in daughters of women given the drug diethylstilbestrol during pregnancy.[4] The impacts of endocrine disrupters on wildlife were first widely recognized in the 1970s when the organochlorine insecticide DDT caused egg-shell thinning in birds.[5] Recently, endocrine disrupters have been making headlines nationwide, as more research becomes available about the correlation between exposure to endocrine disrupters and reproductive dysfunction.[6]

Numerous wildlife populations have plummeted in recent years.[6] Typically the declines are not due to animal deaths, but more to insidious reproductive failures. The causes for these failures vary widely, but can include behavioral changes, skewed sex ratios, feminization, and testicular abnormalities.[4] Evidence for the same kind of problems in humans is clearly frightening.

As breast and testicular cancer rates rise, sperm counts continue to diminish and wildlife populations are threatened. We need to act on the available information and curtail releases of endocrine disrupting chemicals now. The Danish organic farmers should be setting an example for the rest of us. We cannot afford to wait for difinitive studies and definitive answers.

Samantha McCarthy

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1 Carlsen, E. et al. 1992. Evidence for decreasing quality of semen during past 50 years. *British Medical Journal* 305:609-612.

2 Sharpe, R.M. and N.E. Skakkebaek. 1993. Are oestrogens involved in falling sperm counts and disorders of the male reproductive tract? *The Lancet* 341:1392-1395.

3 Abell, A., E. Ernst, and J.P. Bonde. High sperm density among members of organic farmers' association. *The Lancet* 343:1498.

4 Colborn, T., F. vom Saal, and A. Soto. 1993. Developmental effects of endocrine-disrupting chemicals in wildlife and humans. *Environ. Health Persp.* 101(5):378-384.

5 Fry, D.C. et al. 1987. Sex ratio skew and breeding patterns of gulls: Demographic and toxicological considerations. *Stud. Avian Biol.* 10.26-43.

6 National Woldlife Federation, 1994. *Fertility on the brink: The legacy of the chemical age.* Washington, D.C.

Reprinted from *Northwest Coalition for Alternatives to Pesticides/NCAP*, P.O. Box 1393, Eugene, Oregon 97440 - (503) 344-5044.

A PRESENTATION by Rosalind Anderson, Ph.D. titled Measuring Health Effects of Low Level Airborne Chemical Mixtures was given at the 121st Annual Meeting of the American Public Health Association. Dr. Anderson has been able to demonstrate, using a standardized toxicology bioassay, health effects from airborne emissions from consumer products such as perfume, room fresheners, carpets, and vinyl wall covering. Mice are exposed to emissions from test samples and monitored for physical and behavioral changes. The effects on the mice have been sensory and pulmonary irritation, neurological changes, and death. This method may be helpful in studying the health impact of chemicals on humans.

Dr. Rosalind Anderson, President, Anderson Laboratories, Inc., 30 River Street, Dedham, MA 02026.

Reprinted with permission from *The Delicate Balance*, 1100 Rural Ave., Voorhees, N.J. 08043, (609) 429-5358.

CAT DANDER TURNS UP IN THE DARNDEST PLACES

In the past, researchers have found cat dander in places where there have been no cats. Analysis of mattresses has shown that when there is a pet in the family, the mattress not only contains house dust mite, but also pet dander.

Dr. A.C. Egmar, Stockholm, Sweden, decided to investigate the presence of pet dander in mattresses in environments where animals had never been kept. She decided to investigate the mattresses at the local furniture store.

She collected dust from the mattresses which had been out as demonstrators and new mattresses which were in the factory packaging. She did not find dog dander in any of the mattresses. The new mattresses did not have any dander in them. The demonstration mattresses, where people lay on them to judge comfort, had significant cat dander. The longer the mattress had served as a demonstrator, the more cat dander it contained.

Her findings show that humans transmit animal dander, particularly cat dander, on their clothing to pet-free places.

Reference: Abstract #106, American Academy of Allergy Meeting, March 4 - 9, 1994.

Reprinted from *Allergy/Asthma Information Association* Vol. 30, Summer, 1994.

RESEARCH UPDATE

ALVEOLAR CAVITATIONAL OSTEOPATHOSIS: Manifestations of an Infectious Process and its Implications in the Causation of Chronic Pain. E.J. Ratner, B. Langer and M.L. Evins. J. Periodontol, Oct. 1986, pp 593-603.

The authors describe infections in the jaw that are not detectable by X-rays and that can cause certain craniofacial pain syndromes and chronic syndromes in the back, chest, arms, legs and cervical areas. The article includes some comprehensive drawings that show the pain pathways emanating from the oral cavity.

RHINOLARYNGOSCOPIC EXAMINATION of Patients with the Multiple Chemical Sensitivity Syndrome. W.J. Meggs and C.H. Cleveland, Jr. Archives of Environmental Health. Jan/Feb. 1993, pp 14-18.

Abstract: Ten patients who met the Cullen case definition for the multiple chemical sensitivity syndrome were evaluated; a history was taken, and physical examination and fiberoptic rhinolaryngoscopy were performed. All patients had an initial chemical exposure, which was followed by multiple physical and mental complaints in response to subsequent exposure to a variety of odorous organic chemicals. Rhinitis was a prominent complaint in nine patients, but one patient denied any nasal symptoms. Rhinolaryngoscopic findings were abnormal in all patients; edema, excessive mucus, a cobblestone appearance of the posterior pharynx and base of the tongue, and mucosal injection were observed frequently. A particularly striking finding was focal areas of blanched mucosa that surrounded a prominent vessel. These results suggest that nasal pathology may be a prominent feature of this disorder.

HUMIDIFIERS AND MICROBES

A microbiological study of 19 water-spray humidification systems noted average bacterial concentrations of 645,000 viable colonies per milliliter of water and 423 viable fungal colonies per milliliter of water. Such high water concentrations of microbes can produce many airborne spores, which can cause or worsen such lung probems as humidifier fever, asthma, or hypersensitivity pneumonitis.

Joseph Burhkhart, et al., *Applied Environmental and Occupational Hygiene*, Dec. 1993.

"ENVIRONMENTAL HORMONES"

"Over the past 15 years, research has unmasked a number of 'environmental hormones' - chemicals and pollutants that disrupt biological processes, often by mimicking the effects of naturally produced hormones such as the female hormone estrogen. On the ever-growing list of these agents are several restricted or banned pesticides - including DDT,....DDE, kepone, heptachlor, dieldrin, mirex, and toxaphene....[T]here is no way of predicting---based on [compound] structure or function --- which compounds will exhibit a hormonal alter ego."

Janet Raloff, *Science News*, Jan 9, 1994.

RISKS OF DDT AND DDE

DDT and DDE are known for their estrogen-like actions. Higher blood levels of DDE have been found to be statistically associated with increased risk of breast cancer.

Mary Wolf, et al., *Journal of the National Center Institute*, 1993 pp. 648-652.

PROGRESS

The Institute of Medicine has published a report, "Environmental Medicine and the Medical school curriculum," which contains "objectives and recommendations for what all medical students should know and be able to do at the end of their training," including:

- how to take an environmental exposure history;
- how to recognize sources of environmental exposure related to disease;
- how to identify informational, clinical, and other resources to help address patient and community environmental health problems and concerns.

The report is available free from IOM, Room FO-3034, 2101 Constitution Ave., Washington, D.C., 20418; 202-334-1716.

Andrew M. Pope, *Journal of the American Medical Association*, February 9, 1994.

RADON-LUNG CANCER RISK CONFIRMED

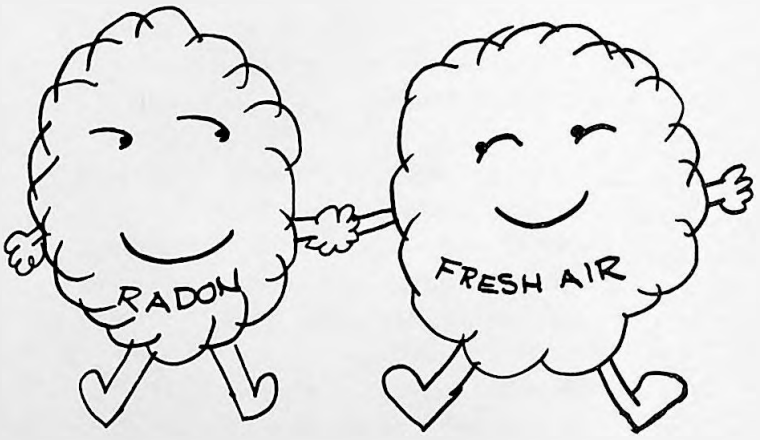
EPA has long advocated building tests for radon and remedial action to combat high indoor radon levels. Radon is an agency "class A" carcinogen; along with benzene and environmental tobacco smoke. Critics have questioned EPA's reliance on the extrapolation from occupational health studies involving uranium miners' radon exposures to support agency radon policy.

A recent nationwide Swedish study may silence the criticism. It involved thousands of lung cancer patients and controls and residential radon measurements collected since 1947. Findings confirmed the radon/lung cancer link. (See *The New England Journal of Medicine* 330, 1994, for more.)

Interesting sidelight: For study subjects who slept near an open window, there was no apparent trend in risk with increasing radon exposure. *[Indoor radon levels in their bedrooms may have been so diluted with fresh air that their inhalation of radon decay products was reduced.]*

Indoor Air News, Winter 1993-94.

The above five reports were excerpted from *The Human Ecologist*, P.O. Box 49126, Atlanta, GA 30359



MEMBER PROFILE

YVON HELEN HEMSOL

Determination and Loving Support Made a Difference

Yvon grew up in a family that preferred homeopathic remedies to antibiotics. Their diet emphasized whole foods e.g. whole wheat flour. Unfortunately, such practices were not enough to keep them healthy when the urea formaldehyde foam insulation (UFFI) in their house began to breakdown in 1982.

The first sign of the UFFI breakdown as a smell emanating from the bedroom walls that resembled the smell of new no-iron sheets i.e. formaldehyde. One morning, Yvon's mother woke up sick. Then her dad got very ill. Yvon constantly has a sore throat.

As part of their investigation of UFFI, the family met with others in similar circumstances. When meetings were held at the Hemsol's, people reacted very intensely and said this was one of the worst houses.

They felt much better when they went to a rented cottage for the summer. In the fall when they returned to their house, they all got sick again. Shortly afterwards, Yvon moved into an apartment and her parents followed.

Yvon began to react with sore throat and fatigue in stores that had formaldehyde in them; then with asthma to panelling and to some stuffed new chairs. In 1983, she developed food sensitivities. Her lips swelled when she ate. She went to the hospital and they concluded that she was highly allergic to food additives. However, avoiding food additives was not the solution. Her condition continued to worsen.

In December 1985, Yvon had to take disability leave from work. She was down to 100 lbs. and seriously ill. She could not tolerate any food or water. She reacted to food with diarrhea and vomiting. When she drank water, her glands swelled up. She had a constant fever. Exercise made her feel worse. She went to a G.P. who told her that her immune system had broken down. She recommended organic food and long term disability. Yvon took to her bed and her parents prepared her food. Her mother gave her a reflexology treatment every night.

A friend suggested that she network with others who had similar problems to learn how they were helping themselves. So Yvon went to a Candida meeting and tried a variety of things that made her sicker. Next she tried applied kinesiology and she reacted adversely to their treatment and even to their homeopathic remedies. She went to a doctor practising environmental medicine who, after much testing, identified her as a universal reactor. He said he could not help her much until she built herself up. He suggested moving to her cottage.

Then in April, 1986 she heard about a Naturopath who was successfully helping environmentally hypersensitive people. Yvon went to him and has been with him ever since. Using a Vega machine (a diagnostic system that measures the electrical potential of acupuncture points and allows for the evaluation of organs), he identified a water that she could tolerate and made up her homeopathic remedies in that water. From 1986-88, the focus was on assisting her body to heal her lungs.

The naturopath suggested she get her mercury amalgam fillings removed. She had this done over a 3 year period using acupuncture to avoid freezing. Her food sensitivities improved after the amalgam was removed. Her candida was controlled but her chemical sensitivities remained.

Yvon also had lymphatic massages done for about one year. They seemed to help.

She went back to work as a social worker in 1987. She started working one hour a day and gradually increased her hours. She had a very supportive boss who asked her what needed to be done and had it done. No one was allowed to wear scented products. Yvon had the final say on what cleaning products were used. Yvon's office got an oxygen tank and an air cleaner.

Unfortunately, by 1991, Yvon had a new boss and an office renovation was planned. They moved to a temporary space which gave Yvon some problems. Yvon got them to change the air filters and this helped. Yvon began to work with the architect in charge of the renovation. His son had sensitivities and he understood the importance of having her test the tiles, etc.

Yvon's condition worsened and she had to visit the naturopath continuously in 1992/93. She was and is quite adept at putting herself on and off homeopathic remedies to cope with exposures (e.g. lead, formaldehyde, cigarettes) but the office space took its toll on her health. In the fall of 1993, she moved into the renovated office and got ill. Once the air filters were cleaned, she was fine.

She tried out myofascial balancing. This helped eliminate a constant pain in her hip but she still has shoulder pains.

1994 was the first year that Yvon did not have constant fever. Her very painful bladder reactions, which had been occurring since 1989, were much diminished. She was able to work overtime frequently. However, her life still centred on work and rest at home.

During the summer at the cottage, she felt her health make a significant turn for the better. The swimming and sailing were very helpful and healthful. She suspects that she may be able to undertake activities she has not done since 1982.

Yvon still has food sensitivities. She only eats organic food. She gets her foods tested by the naturopath at the beginning of each new season. She finds she does not have to rotate rice and vegetables (beans excepted). In non-pollen seasons, she can eat other grains but only on rotation. She always has to rotate her meats. She has to be very well to eat beans. She also has to rotate her natural laundry detergent and shampoo.

Yvon believes it is important to have a good attitude; to be in charge of your own case; to acknowledge the progress you have made; and to acknowledge when your health is sliding. She is clear that the emotional support of family, colleagues and friends is very important.

LEGAL ISSUES

ENVIRONMENTAL-ILLNESS CLAIMS FACE NEW APPEALS PROCESS

Nurses seeking compensation voice objections

For the past three years as nurse Ann Cheyne and her three children suffered through a multitude of tests and treatments for environmental illness they say they contracted at Camp Hill Medical Centre, she hoped for two things -- a cure and some compensation for the ordeal.

Ms. Cheyne is one of 300 workers from the Halifax hospital who suffer long-term health problems which they say are a result of chemical-saturated air in the facility caused by a poor ventilation system.

She said yesterday that her family is learning to live with chemical sensitivity - but she is enraged by proposed provincial legislation that she fears would wipe out the appeal process through which she has applied for compensation.

The workers, most of them nurses, have applied to the Nova Scotia Workers Compensation Board for compensation. The board has rejected claims from Camp Hill workers for long-term-disability benefits, and with the exception of one nurse who was approved for compensation by an independent appeal tribunal, all have appealed the rejections and have been waiting for hearings on the appeals for nearly three years.

Now, under a proposed amendment to the workers-compensation scheme, that appeal board, swamped with 1,800 appeals of WCB decisions, would be disbanded - and its cases would be reviewed internally by board officials.

The nurses at Camp Hill, who were hoping to have the WCB cover the more than $500 a month some of them pay for therapy and medicine, say that process would all but guarantee that board officials, who have questioned whether environmental illness is a chronic condition, would turn down their pleas for coverage.

"In these times of economic restraint it is both immoral and unethical that justice and health are being compromised," Ms. Cheyne told a news conference yesterday. "As a former health-care worker, I am now being discarded because it is too costly to assume responsibility for [a condition] that is acknowledged as work-place-related."

The Camp Hill hospital is now paying about 120 health-care workers who are too sick to return to their jobs 70 per cent of their net wages. The workers had hoped to replace those payments with workers-compensation benefits, which would pay them 75 per cent of their gross income as well as cover the cost of medical treatments.

Ann Thompson, a Camp Hill nurse who hasn't been able to work since March of 1992 and whose appeal has yet to be decided, said the WCB is resisting paying long-term-disability benefits for environmental illness "because they won't recognize that the illness even exists or that it occurred due to our workplace."

Nova Scotia Labour Minister Jay Abbass told reporters yesterday that the proposals for handling appeals are designed to speed up the process, which is bogged down by the number of requests for review of board decisions.

Mr. Abbass said that if the Camp Hill workers' cases have not been formally heard by the old appeal board, the medical evidence will be reviewed by board officials, who will try to make a speedy assessment of how the case should be dealt with.

Mr. Abbass insisted that under the new system an independent commissioner will hear appeals from anyone not satisfied with WCB decisions.

"It is not our intent to take away a worker's right to natural justice, " he said.

The Globe and Mail, November 29, 1994

RIGHT TO ACCESS FOR THOSE WITH MCS

The City of Santa Cruz, CA, has developed a transition plan to make services and programs accessible to persons with disabilities. This plan is unique in explicitly addressing the needs of people with Multiple Chemical Sensitivity (MCS). Under the Americans with Disabilities Act of 1990, all local governments must make physical changes and establish policies to reasonably accommodate the disabled.

The Santa Cruz plan outlines how the city will mitigate toxic materials, including, "carpet cleaners,pesticide/herbicides/fertilizers,cleaning agents, maintenance materials, solvents, glues, adhesives, caulks, formaldehyde, certain inks and papers, photocopy/laser print machines, and gas heating and cooking appliances and chemicals in portable toilets." The plan calls for stopping the use of toxic materials where possible, adequate ventilation, and signage posted at a distance from harmful materials to deter people with MCS from entering.

Chemical air fresheners and fragrance emission devices, "including use by individual employees in restrooms or at work stations" will be eliminated. Fragrances within City facilities and vehicles will be discouraged and unscented soaps provided in restrooms. Meeting notices and tickets for community events will request "restraint of use of tobacco and fragrance products."

The ADA Plan is available from the City Clerk, City Hall, 809 Center, Santa Cruz, CA 95060. (406) 429-3784. To avoid any charges for pages you do not need, you can just ask for Section III. Or send $2.50US to NYCAP for the complete plan.

Reprinted from *NYCAP News*, P.O. Box 6005, Albany, N.Y. 12206-0005.

WOOD PRESERVATIVES CAUSE HYPERSENSITIVITIES IN GERMANY

Chemical injuries and poisonings and the resultant hypersensitivities are not limited to North America.

In Germany, the exposure pattern differs. According to a spokesperson for a national patient support group Interessengemeinschaft Der Holzschutzmittel-Geschädigten e.v. (IHG), most hypersensitive individuals in Germany were exposed to wood preservatives manufactured by Desowag. The two most popular products: xylamon, a clear finish, and xybdecor, a similar product with a stain, contained the pesticides pentachlorophenol (PCP) and lindane. Wooden windows were frequently dipped in the wood preservative followed by several coats of stain. These products were used in commercial applications and do-it-yourself kits available for home use.

Throughout the 1980s, more and more families with new and previously treated windows, and children in schools where these products were being used, were becoming chronically ill and disabled. Severe central nervous system symptoms and respiratory problems were the most prevalent health complaints. Patients also reportedly exhibited aggressive, anti-social

behavior. There was also an increased incidence of aplastic anemia, leukemia, and liver damage.

Since German reunification , a similar cluster of hypersensitivity has been observed in residents of East Germany from wood preservatives contaminated with DDT and lindane.

A lawsuit against Desowag brought visibility to chemical sensitivities and the toxic products. Two managers at the company were sentenced in May 1993. More legal action is expected. The visibility brought another 1500 calls and 500 letters to IHG. More than 10,000 people had reported health problems to the patient group during the previous decade.

Reprinted with permission from *The Delicate Balance*, 1100 Rural Ave., Voorhees, NJ 08043, (609) 429-5358.

AGRIBUSINESS LEADS EFFORT TO SILENCE ACTIVISTS

In recent years, successful food safety campaigns such as the Natural Resources Defense Council's exposure of the chemical Alar, the United Farm Workers' pesticide-related grape boycott, and Food & Water's campaign to stop food irradiation have forced food companies to change the way they do business. Now, instead of addressing consumers' legitimate food safety concerns, the food industry and agribusiness interests have joined forces to fight activists. In other words, ignore the message and kill the messenger.

One of the most dangerous weapons to come out of this united anti-activist effort is the agricultural disparagement law, a type of statute which allows the food industry to sue people who publicly state that a perishable agricultural product is unsafe. Under such a law, activists could be sued for warning people not to drink milk produced with synthetic bovine growth hormone or for saying that eating irradiated food might cause health problems. Agricultural disparagement laws are already on the books in Alabama, Georgia, Florida, Idaho, and Louisiana, and the legislatures of Minnesota and Mississippi are currently considering such legislation.

Reprinted from *Safe Food News*, Depot Hill Rd , RR#1, Box 114, Marshfield, VT 05658, Summer 1994.

NATIONAL PESTICIDE-FREE WEEK

Citizens for Alternatives to Pesticides (CAP) is a Quebec-based group that's getting the ball rolling nationally on the urban pesticide issue. According to CAP Co-ordinator Merryl Hammond, the response to CAP's recent suggestion for a cross-Canada anti-pesticide week has been extremely enthusiastic.

Hence, the week preceding Earth Day, which falls in 1995 on Saturday, April 22, has been declared (at least by CAP and its associates, and perhaps will be by Environment Minister Sheila Copps too) **National Pesticide-Free Week.**

If you're interested in getting your community involved, CAP has a Pesticide Action Kit for sale. The kit comes complete with relevant stats, quotable quotes, quick facts, summary of the issues, ideas about things to do locally to raise awareness, sample letters to MPs, and so on.

To order, contact **Merryl Hammond, CAP, 20 Sunny Acres, Baie d'Urfé, PQ H9X 3B6.** Phone: **514-457-4347.** Fax: **514-457-4840.** The cost for the kit is $10, plus postage. (Merryl will bill you when she sends the kit.)

FOOD & NUTRITION

ANTIBIOTIC RESISTANCE - A GLOBAL CRISIS

"What ever hasn't happened will happen and nobody will be safe from it" J.D.Bernal

Antibiotic resistance is an emerging global crisis because there is no treatment for diseases caused by resistant bacteria. Poor sanitation is tolerable in both poor and rich countries, provided mass produced and inexpensive antibiotics are available. Previously, government regulated the levels of antibiotics in meat and dairy food, but ignored resistant bacteria within such products. Resistant bacteria should be absolutely banned in food products.

Antibiotic drugs were introduced 50 years ago and they revolutionized medical practice. About half the antibiotics manufactured are used in animal feeds to enhance weight gain or treat chronic infection. Treatment of human transplantation patients or autoimmune diseases such as lupus or multiple sclerosis reduces natural immunity requiring powerful antibiotics. As antibiotic use increased the disease bacteria developed genetic defences against the drugs. Diseases previously controlled by antibiotics have vengefully reappeared and are on the increase. The main concern is expressed in an editorial in the American Journal of Infection Control, August 1994, "The battle between man and microbe is escalating and the microbe is winning."

Diseases such as tuberculosis, meningitis, gonorrhoea, bacterial pneumonia, staphylococcus disease and enterobacter blood poisoning are increasing alarmingly. As many as 10% of hospital patients may have been infected in the hospital by antibiotic resistant mutant bacteria.

Antibiotic resistance genes are now known to be transferred from bacterium to bacterium by a mechanism similar to virus infection. Non-pathogenic bacteria transfer genes to disease causing bacteria which in turn transfer back. As the immune system fights a disease germ, the germs antibiotic resistance is transferred to friendly gut bacteria. The resistance genes are transferred in structures similar to cassettes which can be exchanged between widely different bacterial species (this exchange is comparable to an elephant mating with an angle worm). The main sources of antibiotic resistance include hospitals and farms that raise animals. Friendly (commensal) bacteria that humans need in their guts also have antibiotic resistant gene cassettes which can rapidly transfer to pathogens.

In developing countries with poor sanitation antibiotics are sold "over the counter". Frequently 90 to 100% of the people release faecal material with resistance to one to six antibiotics. In the United States and European Economic Community about half the faecal isolates have antibiotic resistant bacteria.

Within the very near future people will have to recognize that we cannot continue to release untreated animal and human faeces into rivers and creeks to pollute beaches and commercial fish. These practices encourage spread of antibiotic resistance genes causing increased disease, deaths and terribly burdened health care costs from isolation wards and stringent microbe control.

Using genetic fingerprints similar to those used in crime cases, it is possible to establish the sources of the resistant bacteria, whether dairy cow, sewer or sea gull. For example, an antibiotic resistant Staphylococcus infected 15 newborn in a hospital nursery. The nursing assistant who cared for the babies was implicated as a carrier but 11 new cases appeared soon after she was fired. Molecular detective work proved the epidemic was caused

by a facial boil on the attending physician.

Similar molecular detective work showed how resistance to antibiotics used to treat tuberculosis appeared first in a Swiss population of AIDS patients, then the resistance moved into the general population. Within the past few years, resistant Cholera appeared in South America, creating fatal epidemics. Genetic fingerprints can trace the origins of resistant pathogens, but cannot provide a treatment for them.

Resistant genes are transferred between bacteria in fish, fowl, pork or milk, and human disease bacteria. For example, resistance genes were transferred from bacteria in milk from a cow with mastitis to human infecting bacteria on the surface of a paper towel. Other studies showed that such resistant pathogens can be transferred to the farmer's children from his clothing or hands. The children in turn will infect a grade school and then the pathogen can rapidly spread over a country. Such epidemics have been studied.

The previous observations bring up the problem with bovine growth hormone(Bgh-Bst) and gene tinkered crops. Bgh is being used to increase milk production in the United States, but not yet in Canada. The genetically engineered hormone treatment causes mastitis, an infection of the cow's udder. The infection causes pus cells to appear in the milk. The disease is treated with antibiotics. The use of Bgh will thus lead to a huge increase in antibiotic resistant disease organisms that transfer resistant genes to human pathogens by direct contact with farmers, milk and surface water polluted with manure. Pasteurization kills bacteria in milk, but the resistance genes can be transferred to live bacteria (a process called death and transfiguration). The gene tinkered crops, such as Flavr Savr tomato have antibiotic resistance genes in each cell. People eating such tomatoes release antibiotic resistance bacteria to the environment by a process called plasmid rescue.

There is good reason to believe that the enzyme products of the antibiotic resistance genes in crop plants will be potent food allergens because their shapes conform to the highly allergenic antibiotics.

Antibiotics should be limited in animal care and for that matter to human disease treatment. Use may be restricted to only the most threatening diseases. Once antibiotics are restricted the resistance genes cassettes should disappear. Clearly, untreated human and animal faeces spread antibiotic resistance gene cassettes leading to untreatable human diseases and unnecessary human deaths. The government should absolutely ban antibiotic resistant microbes from food products.

Joseph E. Cummins - Associate Professor of Genetics at The University of Western Ontario.

Originally printed in *Alive - Canadian Journal of Health and Nutrition* (Feb. 1995) - Available free in health food stores across Canada.

FOOD ALLERGY CONFERENCE

The US Department of Agriculture (USDA), the Environmental Protection Agency (EPA), and the Food and Drug Administration (FDA) sponsored a scientific conference on new allergens in genetically engineered food in April 1994 in Annapolis, MD. In its 1992 policy on genetically engineered food, the FDA acknowledged that the transfer of proteins into plants from unrelated sources could render foods allergenic that had previously been safe. Scientists at the conference presented evidence confirming the potential risks of transferred allergens. Experiments have now shown that a transgenic soybean containing a protein from a Brazil nut reacts with serum from individuals allergic to Brazil nut, indicating that those individuals might have a reaction if they were to consume the soybean.

The conference participants considered possible approaches to predicting whether a given protein might pose allergen risks for some portion of the population. The results of these discussions were discouraging. Other than reactions with the blood sera of individuals known to be allergic to foods, there are few laboratory tests for allergenicity. Some information can be gleaned from the structure and characteristics of known allergens, but food allergens are a diverse group of proteins and there are exceptions to almost every rule. Much more basic research is needed to answer the important questions about food allergies in general and the implications of allergen transfer for genetically engineered foods.

FDA's policy considers requiring labelling in cases where novel proteins were taken from commonly allergenic foods like milk, shellfish, and nuts, but fails to address the risks posed by proteins transferred from non-commonly allergenic foods or from non-food sources of unknown allergen status.

Reprinted from *The Gene Exchange, Union of Concerned Scientists,* 1616 P Street NW, Washington, DC 20036.

"THE CODEX ALIMENTARIUS: A FORCE IN OUR LIVES"

During the week of 24-28 October 1994, I was a member of the Canadian Delegation to Codex Alimentarius Commission Committee on Food Labelling in Ottawa. Codex Alimentarius is a establishment of the United Nations Food and Agriculture Organization and World Health Organization. Codex is responsible for setting standards for food quality worldwide. Under the general agreement on tariffs and trade (GATT), Canada is expected to accept Codex standards for imported food but can employ more stringent measures after extensive negotiations. The Codex Food Labelling Committee meets in Ottawa in roughly eighteen month intervals and reports to the Codex Alimentarius Commission in Geneva. Codex regulations are discussed through seven steps at the committee level. Countries, industries and public interest groups have equal delegations to the committee, and at each step the delegation confers with home government or company management. The eighth and final step is acceptance of the regulation by the Codex Alimentarius Commission.

Labelling of foods produced by genetic engineering has just begun to be studied by Codex. The United States prepared a discussion document on labelling genically engineered foods, the paper followed the Food and Drug Administration (FDA) policy written for FDA by an attorney who had earlier served the Biotechnology Food Trade Associate and the multinational company Monsanto. The U.S. position is that genetically engineered foods do not require labelling. Genes from humans or animals in crops shouldn't violate vegetarian, ethical or religious beliefs. FDA has also prevented producers from claiming their products were free from genetic engineering. It is shocking to see how FDA had become absolutely a mouthpiece for multinational industry.

The U.S. document ignored evidence about an incident in which production of a genetically engineered batch of L-Tryptophan (a health food product) led to a crippling disease called Eosinophilia Myalgia Syndrome that killed at least 38 Americans and severely injured thousands. Interestingly, the International Organization of Consumer Unions disagreed with the U.S. position, arguing in favour of mandatory labelling for genetically engineered foods. In contrast the International Federation of Grocery Manufacturers strongly supported the U.S position.

The sense of the meeting was the U.S. was trying to force a block with Canada and Mexico to oppose the European countries who strongly

favour labelling genetically engineered foods. Asia, Africa, and the Middle East have not yet taken sides.

In conclusion, the Codex Alimentarious is a significant force in our lives. Canadians can contribute to important food issues by giving their views to the Codex Delegation on food labelling.

Send comments to the Honourable Ralph Goodale, M.P., House of Commons, Ottawa, Ontario, K1A 0C5.

Joseph E. Cummins, Associate Professor (Genetics), Department of Plant Sciences, The University of Western Ontario.

A CHILD'S FOOD ALLERGIES

I came back from yet another trip to the doctor feeling angry and confused. Yet again, I'd failed to make him understand the extent of the problems I felt my child had. I decided to write it all down - maybe then someone would take notice. I made a list of the symptoms I had to deal with in my one year old daughter.

- 8 months of continuous ear, chest and viral infections;
- constantly runny noses;
- eczema;
- red rashes on her face;
- frequent vomiting after milk;
- frequent crying, screaming and unhappiness (the midwife nick-named her Mrs. Angry on day 3!);
- extreme sleeplessness, day and night;
- aggressiveness towards other children;
- terrifyingly reckless behaviour;
- clumsiness leading to numerous accidents, bumps and bruises;
- refusal to eat except for a very limited range of foods;
- constant restlessness - never still or calm.

Yet, in spite of all this, I dearly loved her especially when there were glimpses of a lovely little character beneath all the frantic and miserable behaviour. I looked at the list again. I could see what the doctor meant, there was nothing very out of the ordinary. At some point most mothers have to cope with one or more of these problems during their child's development - what was I making all the fuss about? Then I remembered I was making a fuss because I was having to cope with all the problems at the same time - all the time - it couldn't be normal, could it???

I talked to health professionals and other mums in an effort to get things in perspective and quite naturally I was inundated with a mass of well meaning and indeed greatly appreciated advice. The problem was that all the advice had a recurring theme running through it: it all seemed to boil down to something I was or wasn't doing.

- I was over-anxious;
- I wasn't disciplining her enough;
- I was over-compensating for having gone out to work;
- I was suffering from stress and depression;
- I was failing to develop good sleeping habits in my child, and letting bad ones set in;
- I was using the wrong washing powder;
- I was expecting too much of her;
- I was failing to understand that child-rearing is difficult for everyone, especially first time mums;
- I was using up too much of the doctor's time;
- I wasn't cooking an imaginative, fresh enough or well balanced enough diet to tempt my child to eat;
- I wasn't keeping the house dust free;
- I was doing too much for her.
- I was basically alone and I wasn't coping.

The funny thing is that the last time I looked I thought I had been a happy, confident and competent adult able to spend the day with 33 five-and six-year-olds and not turn a hair - where had I gone wrong? Why couldn't I cope with one small, helpless, screaming bundle?

I could see either a nervous breakdown or a battered baby looming on the horizon depending on which part of me snapped first. But I kept hearing a little voice telling me that this wasn't right, this really wasn't the way it was meant to be.

Then something happened that changed everything. That little voice inside me was joined by the stronger, wiser voice of my neighbour. Many years before, her own child had shown intolerance to certain foods in the most surprising ways. Indeed, fourteen years on "Refreshers", those apparently innocuous fruity sweets, are still banned from the house!

My neighbour inspired me to return to the doctor yet again. But this time I had something specific to say. I didn't just ask for help with problem behaviour, I wanted to be referred to a specialist in diet-related illnesses. The result was amazing. I had finally found the magic key. At last I had access to people who believed me, took my problem seriously, sympathised and took simple but positive steps to help.

As soon as I made some simple changes to my child's diet things began to improve. They continue to get better as I learn more. In fact, I'm now so optimistic that I believe Freya will soon put all her difficult early months behind her. Even my own sense of isolation is beginning to fade, especially because in the last few weeks close family have finally understood what Freya and I have been going through.

I still feel angry that most of the primary health care professionals I turned to for advice had neither the relevant knowledge nor the ability to support me in my desperation. It seems to me now that the people most likely to understand a specific problem are those who have experienced it themselves, so I have joined the hyperactive children's support group as the link between hyperactivity and food allergy is a strong one. This organisation has sent me a wealth of advice, including scientific research. I only wish I'd known about it all before, rather than having to discover it all in spite of some of the first-base professionals. The more I read the more I am amazed by the implications of diet for children's health, behaviour and development.

There are thousands of studies now on aspects of diet and their effect on children. Internationally, the medical profession is beginning to recognise and understand the problem, but it is still hard work to get beyond the primary health professionals - the doctors and health visitors for example - to the wealth of marvellous allergy specialists and dieticians out there, more than ready to help.

The problem for diagnosis is that every child reacts differently to a wide variety of substances. My daughter reacted most severely to dairy products - (in fact it was the severity of reaction that helped us recognise the problem early) - but oranges, wheat products and artificial colours and preservatives are other common offenders out of a huge list of natural and artificial substances that can cause a wide variety of responses. For my family it has meant a complete overhaul of our diet. For a friend, she knows she just has to keep her children from having squashes with certain colours in if she is to avoid an explosion of excitable behaviour.

Whatever the change it's been worth it to me to see the bright, attractive, happy, sociable and fairly co-operative child that eats well and sleeps for 11 hours every night - I knew she was there, I just couldn't always find her. (continued on Page 20)

BUILDING AND RENOVATIONS

ENVIRONMENTALLY SOUND BUILDINGS NOW WITHIN REACH

Environmentally sound construction practices are gaining popularity in Canada. A small number of contractors and institutions are changing to accommodate the new environmental market, and governments are organizing environmental housing competitions to promote the new trend.

Building contactor Ed Lowens first switched to natural and renewable resource-based construction products to cater to clients with environmental hyper-sensitivity. The ailment, with debilitating symptoms including anxiety, palpitations, eczema, fatigue and short-term memory loss, is a recently recognized condition that is largely caused by exposure to toxic building materials. But recently Lowens' clientele has changed.

One of a handful of contractors in the Toronto area specializing in environmental housing, Lowens says he's recently built or renovated more homes for people who don't suffer from environmental hypersensitivity. The new clients are interested in living in homes that have been designed and constructed with environmental sustainability in mind.

The interest in environmental construction is not limited to domestic buildings. A high school classroom at Kitchener Collegiate Institute is the result of a recognition that poor environmental conditions can affect the ability of certain students to learn. For the past five years, students with environmental hypersensitivities have been able to take classes in a classroom which has had most petrochemical-based products removed. Furniture is made from wood and the floor is a special concrete coated with vegetable-based dye. Students use non-toxic products, such as markers, and there are cotton futons for rest periods.

In Los Angeles, interest in environmental construction has extended into commercial buildings. The Beverly Plaza Hotel, designed to serve people with environmental hypersensitivities, now attracts a wide range of environmentally concerned clientele. The building is constructed from non-hazardous building materials and enforces a smoking ban. A special dust-free vacuuming system cleans the rooms; air purifiers are used throughout the building; and the heating and air conditioning systems use state-of-the-art filters. The carpets are made from natural materials, are uncoated, and have no harmful backing. Cleaning products used at the hotel are certified non-toxic.

Various levels of government are responding to the new interest with initiatives designed to promote environmental building, including the department of Energy, Mines and Resources'

(continued from FOOD -Page 19)

If you are struggling with a "difficult child' or one who doesn't eat or sleep or communicate well - there could be a number of reasons. It could be teething; it could be a phase, but please, please don't rule out the possibility that there could be a dietary influence.
- Jane Brooks

Reprinted from *The Journal of the Hyperactive Children's Support Group*, 71 Whyke Lane, Chickster, West Sussex P019 2LD.

(EMR) Advanced Housing Design Competition, started to improve energy and water efficiency and waste management of new housing projects. As well, design competitions are held by the Canada Mortgage and Housing Corporation and the Ontario Ministry of Energy.

In Waterloo, Ontario, consulting engineer John Koko of Enermodal Engineering is attempting to push the movement further. Koko is part of the design team building a "green" demonstration home. Funded by EMR through the Advanced Housing Grant, the project is intended to demonstrate what present-day homebuilders can do to make typical three-bedroom detached homes use resources more efficiently.

Energy use is a prime concern for the housing design and Koko's team hopes to reduce energy use by 75 percent compared to the average Waterloo home. The shell of the house uses wooden "I" beams which provide a deep cavity for insulation and use less wood than traditional structures. The windows are triple glazed with argon insulation and small sealed frames. Most windows provide a net loss of energy in the home, but with incoming solar radiation these windows provide a net gain of energy. The furnace is a highly efficient prototype developed by the Canadian Gas Research Institute connected to a rock bed heat reclaimer which is used as an additional heating source. Water heating is accomplished strictly by solar energy including a photovoltaic pump and an instantaneous water heater.

The design team hopes to reduce water consumption in the new homes by 75 percent. Toilets are either gravity flushing or air compression and use two to three litres of water compared to 20 litres in a conventional model. The European dishwasher uses half the water of a North American unit. All faucets contain flow restrictors reducing water flow from seven litres per minute to two litres per minute.

The environmental acceptability of building materials is also a concern for the house. Designers consider a number of factors: the amount of energy required to make the product, recyclability and reusability, durability, the use of renewable resources, the amount of local production and Canadian content, and any emission or use of toxic chemicals or atmospheric gases that might affect indoor air quality.

Indoor air quality is addressed not only in material selection, but also in the design of the ventilation system which reduces the level of micro-organisms and chemicals in the house. All natural gas appliances are equipped with direct vent technology which carries fuel from outside to the appliance and then returns it back outside again.

The project has extended its concern beyond the structure of the house to include the construction process and its related waste. The design team hopes to use 50 percent recycled materials in the house construction. Flooring, baseboards, and door frames have been reclaimed from other housing projects, and cellulose insulation is made from 100 percent recycled materials. Furthermore, the project has set the goal of sending no waste to the landfill. Supplies will be carefully ordered, and any leftovers recycled or returned to the manufacturers.

Written by Catherine Crucil

Catherine Crucil is working on an environmental eduction contract at Brock University.

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INDOOR AIR

EFFICIENT VENTILATION EQUIPMENT: WHY WE DON'T SEE MORE?

Are existing ventilation technologies and installation practices capable of satisfying the new goal of maintaining good indoor air quality? In many cases the answer is a clear "No".

Changes to building codes, construction practices and a greater awareness of indoor air quality means an increased use of mechanical ventilation in housing. Unfortunately, most equipment used today is terribly inefficient and has high operating costs because the electrical energy used is much more than required. The longevity, noise and vibration levels of most devices is unsatisfactory, so many homeowners don't want to use the fans.

A majority of kitchen range hoods in Canada are not used because occupants find they are too noisy; to make matters worse, exhaust fans typically move only 50% of the manufacturer's rated air flow, the rest is lost to leaky ducts. Many bathroom fans have an expected life span of 3500 hours (only 5 months if operated continuously).

Is energy efficiency of ventilation equipment important? Analysis of life-cycle costs of typical residential ventilation systems indicates that energy efficiency could be very cost effective, simply because current equipment is so inefficient. First costs have been shown to be a poor basis for making choices. However, accurate estimates of life-cycle costs are difficult to calculate because we don't know how long people will run the fans and how soon they will be replaced - both important variables.

The present cost of operating an air exchange system could be in the order of a hundred dollars a year. However, the continuous operation of a forced-air furnace blower, for comfort and air filtration, may add many hundreds of dollars per year to operating costs. Both are many times higher than they should and could be, but neither the consumer nor industry are aware of the costs or possible savings. Improving the efficiency of ventilation equipment will require developing a standard for testing and rating the air moving efficiency; creating a process to establish limits and targets; making them enforceable by codes and regulations; and developing methods for

verifying compliance.

> The largest and best financed residential ventilation equipment manufacturers don't seem to have any innovative spirit or drive.

The technical potential for improving ventilation systems is known. To find out why changes are so slow to come, a study[1] was done to find out what key industry players see as the barriers to the availability and use of more energy-efficient residential ventilation equipment.

Respondents claimed to be aware that most residential ventilation devices are extremely inefficient, but most did not have a good understanding of the science or the implications of those inefficiencies.

Air-moving efficiency (how much power it takes to move air, compared to how much is used to perform the task) was often confused with heat recovery efficiency (how much power it takes to heat or cool the air, compared to how much is available in exhaust or intake flows).

Several respondents strongly argued points that are at odds with scientific opinion. Others argued that energy efficiency, itself, is irrelevant; but that concern should be directed towards functional design, total energy consumption or heat recovery losses. Those factors are important, of course, but not to the exclusion of energy efficiency.

Opinions about the potential for technical improvements varied widely. Apparently no common understanding exists about the kinds of technical changes that are possible, desirable or effective. Responses tended to focus on one or two types of devices (bathroom fans, range hood fans, heat recovery ventilators, forced-air circulation motor-blowers, or central exhaust fans, and so on) rather than the controller, motor and fan sets themselves. The most commonly cited improvement was a change to a permanent split capacitor motor from the present shaded pole variety used in bathroom and range hoods, and to higher efficiency motors for forced-air systems.

Industry plans for change appeared to be poorly defined, with the notable exception of the work by Ontario Hydro and General Electric on replacing furnace blower motors with higher efficiency units.

Few considered the cost of operating ventilation fans to become a major issue in the near future.

Since the trend is towards more integration of mechanical systems in houses, any strategy must address the variety of tasks or services a residential ventilation device contributes.

It is discouraging to note that the largest and best financed residential ventilation equipment manufacturers don't seem to have any innovative spirit or drive.

The major problem against higher energy efficient equipment is the consumer's emphasis on first cost. The other big problem is that the decision makers, those who specify and purchase equipment don't usually bear the cost of poor efficiency.

Doubts were expressed about the potential for education of house holders or influencing manufacturers without more research and planning. A suggestion was made that an information guide for distributors of equipment is more important than for the trades. Training should start with system deign and energy efficiency, not motors and fans. It was

suggested the energy utilities should help to fund the process of developing inspection procedures and skills at the field level.

A significant comment made was that the entire industry, including the standards writing groups, is preoccupied with energy and capital costs issues and not to health costs. In fact, the health lobby is non-existent.

It's no wonder it's hard to determine what is appropriate, or to find good equipment.

By Richard Kadulski

1 *"Barriers to the Use of Energy Efficient Residential Ventilation Devises: A Survey of Industry and A Review of Strategies for Change"*
Prepared for: Canada Mortgage and Housing Corporation by Sheltair Scientific Ltd.

Reprinted with permission from *SOLPLAN REVIEW* , Oct.-Nov. 1994
Box 86627, North Vancouver, B.C. V7L 4L2 (604) 689-1841

EFFECTIVE VENTILATION

Ventilation is for people. First and foremost ventilation must provide fresh air for the health needs of the residents and not to remove pollutants generated by construction or household furnishings. This is often forgotten in the discussion about how and how much ventilation to provide.

Most codes and regulations merely state that it is necessary to supply a quantity of air - and that's it. But how do we know that the ventilation will do its job, specially if there are few compliance checks made?

The Swedes have mandated ventilation regulations for much longer that most other jurisdictions - they even have inspectors to check ventilation systems. However, they have noted that even this does not guarantee good air quality.

How much air is needed?

The minimum required air change is considered to be about 4 m$_3$/person per hour, so that a master bedroom needs a ventilation rate of about 6.91/s(14.6cfm) assuming two adults and one child sleep there.

Swedish ventilation standards call for an air exchange rate of 0.5 air changes per hour, which is an appropriate measure for their smaller houses. However, a study[1] found that those ventilation rates don't ensure acceptable air quality in all rooms, especially in bedrooms.

The basic ventilation system was a central exhaust fan with exhaust grills in bathroom, closet and kitchen, with fresh air supplied through passive air intake devices (slot vents in the window frames in all bedrooms, and living room). The slot vents have only two positions: fully open and half open, a common ventilation strategy used in Sweden.

A number of tests were done, simulating normal operating conditions on a new moderately air tight house (less than 3.0 ACH at 50 Pa). Total air volume of the two-storey houses tested were 300 m$_3$ (equivalent to a 1320 sq.ft. house without basement).

Measurements showed that better indoor air quality would be achieved if the bedrooms had exhaust as well as supply grilles. Installing an exhaust in the bedrooms is simple and inexpensive and also allows for a reduction of the house's total air exchange to about 0.3 changes/hour which can result in sizable energy savings.

The air change in the master bedroom (with the exhaust fan set at 0.5 AC/H for the whole house) was 2.2 l/s (4.6 cfm) with the slot vent partially open and 5 l/s (10.6 cfm) with the slot vent fully open. The air change *decreases* if

two second floor windows are open. (The average decrease was about 35%).

As the intent of ventilation is to maintain good air quality, measurements of relative humidity and CO_2 concentrations were also taken. When the passive air intake slots were partially closed, high humidity and CO_2 levels were measured, but when the slots were opened, there was enough airflow to keep levels below acceptable limits, even when the total exhaust rate was decreased but when exhaust was also taken from the bedroom.

What does this tell us?

Just because a ventilation system theoretically provides enough air into the house, there is no guarantee that fresh air will be properly distributed to those areas where you want fresh air. The master bedroom is typically the most critical room to consider because you have two people spending the most amount of time, (and generating pollutants) usually with the door closed, thus providing the most difficult conditions for mixing the house air.

If a ventilation system is carefully designed it can provide a quality indoor air environment at a very small energy cost. It is not necessary to rely on large quantities of airflow if we can provide quality.

It also shows that an exhaust only system with passive ventilation inlet grilles can maintain good indoor air quality. This is a ventilation strategy that may be difficult to use if the proposed changes to the 1995 National Building Code are adopted.

This study under scores the need to be open to a variety of ways of attaining good air change. Codes should be left sufficiently flexible to allow for a variety of solutions to ventilation needs.

**Air Quality in Low-Density Housing, A study of Requirement Adapted Ventilation by Arne Lojdberg and Anders Adling, Swedish Council for Building Research, 1986.*

By Richard Kadulski

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COMBUSTION SAFETY FOR RESIDENTIAL EQUIPMENT

Energy conservation, changes in building airtightness, appliance design and building materials, along with fuel switching, have all combined to potentially cause safety problems due to combustion equipment. The main concern is the level of pollutants in the indoor environment. Some of these may cause immediate, even life threatening problems; others longer term chronic health problems.

As homes become tighter, combustion equipment has a harder time getting enough air to operate properly. Spillage of incomplete combustion products or even chimney reversals can result in high levels of carbon monoxide and other combusion products being exhausted into the house.

Conventional flues are being called on to handle lower flows, temperatures and different fuels than they were designed for; the results are more condensation, corrosion, draft problems and generally unhealthy appliance performance. In the worst cases failures can result in life-threatening situations.

Combustion equipment requires air for the combustion process itself and for dilution. The dilution device (the draft hood on a gas system or the barometric damper on an oil system) is located downstream of the heat exchanger; it's there to separate the combustion from the outside pressure fluctuations, but it needs 2 to

10 times the amount of air needed for combusion.

Conventional wood-burning fireplaces require the most air. While new houses may have an air change rate of 1/2 air changes per hour or less, fireplaces need 3 times this amount. The fireplace with a blazing fire, maximum draft and air needs can reverse the flow through the furnace flue; but when the fire is smouldering the reverse can happen, with the furnace pulling the incomplete combustion products from the fireplace into the living space.

New gas or oil-fired equipment eliminate the dilution by forcibly exhausting combustion products, either with a fan or a series of powerful combustion pulses. These higher efficiency, low air demand appliances are well suited to the low energy homes of today, significantly reducing the chance for combustion spillage into the house.

Some household appliances such as down-draft cooktops have powerful exhaust fans. In a tighter house, or one with marginal draft due to poor chimney construction or maintenance they can cause combusion equipment to spill combustion gases into the house.

The only way to avoid this type of problem is to provide each with its own air supply.

Even the clothes dryer exhaust could create pressure imbalances high enough to cause problems. One way to overcome this is to duct outside air directly to the dryer. (At cold winter temperatures, the mositure content of the incoming air will be very low and should actually aid the drying process).

What Pollutants affect indoor air quality air?

Carbon Monoxide

Carbon Monoxide (CO) is a colourless, odourless, tasteless gas produced in any combusion process when there is incomplete combustion. High concentrations can quickly be fatal. Improving the conbustion lowers the amount of CO produced.

On oil and gas furnaces, the poorest combustion is usually at start-up, where draft is marginal and mixing between fuel and air is not fully established. This can result in peaks of CO as much as ten times the "good tune".

Hydrocarbons

Hydrocarbons are generated during the instant of start-up or shut-down. If CO is dealt with, so are hydrocarbons.

Nitrogen Oxides

Nitrogen Oxides (NO_x) is a colourless, tasteless gas formed during combusion. NO_2 reduces the body's ability to absorb and distribute oxygen and can stress the cardiovascular system. It is one of the prime contributors to low level ozone and urban smog.

The hotter the flame and/or the more nitrogen in the fuel, the more NO_2 is formed. Modification of the flame pattern or mixing can reduce NO_x. Typical oil and gas furnaces produce about 80 ppm NO_x during average conditions. Some advanced combustion technologies are capable of producing NO_x levels 7 times lower.

Particulates and Polycyclic Organic Matter

Particulates and polycyclic organic matter are small pieces of solid matter that are incomplete combustion products usually producted during

smouldering combustion, such as in cigarette smoke, fireplaces or damped-down wood stoves.

Sidestream smoke (smouldering cigarettes) can be more harmful because of the increased level of pollutants produced due to the even poor combustion.

Running wood stoves at high firing rates give better burning. Long slow overnight burns, using new, advanced technology stoves with properly vented combustion products to the outdoors should ensure minimal release of these pollutants inside the house.

Appliance Air Requirements

Over a typical Canadian heating season, a furnace will be on for only 15% to 25% of the time, depending on the degree of furnace oversize, but to calculate how much air is needed the unit must be treated as if it is on continuoulsly.

Table 1 shows the air requirements of various combustion equipment for a typical Canadian house.

Gas Systems

Most conventional gas furnaces have naturally aspirating atmospheric burners, with no fan or blower to assist either in the fuel-air mixing, generation of flue drafts or exhausting the combustion products. A continuously-open draft hood has a large dilution air requirement.

In a tighter house or if the chimney is unsuitable, conventional gas furnaces can be subject to spillage of flue gasses, especially if other equipment with large air demands such as a fireplace are also operating. If the combustion is disrupted, incomplete combustion products, such as carbon monoxide, may be released into the indoor environment.

New higher efficiency gas furnaces/boilers and small, advanced combustion, clean burning wood stoves have no significant air demand and are ideal for lower energy consuming, tighter houses of today. They offer safer operation, making any spillage of combustion products unlikely, as well as improving the performance efficiency as well.

Wood Combustion Appliances

Fireplaces:

Fireplaces are very inefficient, supplying little, if any, energy to the house but they have massive air requirements. At high burning rates a typical fireplace may need 24,000 cu. ft./hr (680m^3/h) of air. Fireplaces should be recognized as a major source of pollutants to the indoor environment.

The best way to ensure that fireplaces don't create problems is not to use one. If they are to be used, they should be isolated from the house with tight fitting glass doors and their own air supply. Artificial firelogs can lower the air needed, reduce emissions by 50-80% and significantly lessen the chances of combustion gas spillage into the house.

Airtight Wood Stoves

Wood can be used efficiently in a well-designed airtight wood stove. These can have an efficiency of up to 50-70%. Air requirements for such a stove are low: only about 600 cu. ft./hr (17m^3/h). There is no dilution of flue gases need on an airtight wood stove; new designs are cleaner burning, producing 80% less pollutants, with even less potential to cause indoor air quality problems.

Unvented Kerosene Heaters

These appliances have been marketed widely; they may offer comfort and efficiency only if used carefully. Having no vent, they exhaust the combustion products into the living space so there is reason for concern if they are used for extended periods of time.

There may be long term health problems due to nitrogen oxides, particulates, carbon monoxide and even sulphur dioxide if the fuel is not good quality.

The air demand of an unvented kerosene heater is about 141 cu. ft./hr (4m$_3$/h).

Gas-Fired Ranges

An appliance similar to the unvented heater is the gas range. Concern has been expressed about incomplete combustion products such as CO, as well as normal by-products of combustion, particularly nitrogen oxides (NO_x) venting into the house.

The range hood fan exhausted directly to the outside should be run continuously when the range is being used to ensure that all combustion products are removed from the living space. The energy penalty is slight (except, perhaps in the harshest of arctic climates).

Poor Performance Due to Chimney Problems

Venting problems are increased by the fact that many masonry chimneys were not well built originally. These can include: lack of tile liner; incomplete tile liner; misaligned or cracked tiles; non-continuous connection of the flue pipe and chimney liner; defective chimney cap; changing fuel from oil to gas (gas has twice the moisture content in the flue gas, a higher dewpoint and lower flue gas temperatures. This promotes increased condensation and corrosion in the vent).

Simple indications of deterioration in masonry chimneys include deterioration of the exposed tile at the top of the chimney; cracking of the chimney cap; efflorescence (whitening) on the outside of the brick; spalling of the brick and mortar; tile segments as cleanout door; yellowish staining on the outside of the chimney; staining as evidence of water run-out at chimney clean-out door; staining or corrosion of the flue pipe connecting the appliance to the chimney.

Prefabricated metal chimneys are not immune to problems, so must be installed and maintained correctly.

Chimneys should be examined and defective chimneys repaired or relined whenever a combustion appliance is modified, changed or added to the system, to ensure good draft and proper combustion performance.

Table 1: Air Demands for Residential Combustion Equipment

Appliance	Combustion Air	Dilution Air	Total
Conventional Oil	2295 cu.ft/hr (65 m3/hr)	6885 cu.ft./hr (195 m3/hr)	9180 cu ft./hr (260 m3/hr)
High Effiency Oil	1307 cu.ft./hr (37 m3/hr)		1307 cu.ft./hr (37 m3/hr)
Conventional Gas	1801 cu.ft./hr (51 m3/hr)	5049 cu.ft./hr (194 m3/hr)	6850 cu.ft./hr (194 m3/hr)
Induced draft gas	1553 cu.ft./hr (44 m3/hr)		1553 cu ft./hr (44 m3/hr)
Condensing Gas	1024 cu.ft./hr (29 m3/hr)		1024 cu.ft./hr (29 m3/hr)
Fireplace	24010 cu.ft./hr (680 m3/hr)		24010 cu.ft./hr (680 m3/hr)
Airtight Wood Stove	600 cu.ft./hr (17 m3/hr)		600 cu.ft./hr (17 m3/hr)

Chimney Location

In Canada most masonry flues are on the outside wall with three sides exposed to the cold air. The house often works better as a chimney than the flue itself, so that creating a draft is difficult. Chimneys should *always* be located inside the heated envelope.

Flue drafts are influenced by height, temperature and wind. It is often thought that the major factor affecting draft is height so if there is a problem nearly everyone will say, "increase the height of your chimney." However, this is not the case; proper design and location are the answer.

From "Combustion Safety For Residential Appliances" presented at the Affordable Comfort VI conference, Pittsburgh, March 1992 by A.C.S. Hayden; Combustion & Carbonization Research Laboratory (CCRL); ERL/CANMET Energy, Mines & Resources Canada. Ottawa, Canada K1A 0G1.

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MORAL CRISIS IN THE WORKPLACE: IS ANYONE LISTENING?

by Elizabeth Stutt

With increasing pressures to improve profits, employers are cutting corners. They're buying cheaper, toxic chemicals to maintain buildings. They're reducing airflow in the workplace to reduce energy costs. But at what cost? The cost is productivity, human health, and morale. The cost is too high. Abram Hoffer, MD, PhD, has been quoted as saying "No amount of evidence can persuade anyone who is not listening." I beg you to listen. I beg you to care.

The workplace of the 60s and 70s (yes I do remember it well), was far different from the workplace of the 90s. In 1977 my office was large (about 10' x 20', if my memory serves me well), had smooth flooring (no carpets anywhere, except perhaps in the big cheese's office), a door I could close, lots of windows that I could open and my furniture was solid oak. Unfortunately, the powers that be were lured into a brand new office tower. My office environment changed dramatically.

No window, no door, particle board furniture, and an 8' x 8' piece of carpet with 6' partitions around me to call home away from home. Within six weeks I resigned at the recommendation of the personnel officer. I was on the verge of a physical and nervous breakdown due to the poor indoor air quality in the building, the lack of natural light, the noise pollution and the lack of privacy. What price progress!

Maurice Strong, Chair of the Earth Council, has said that "The world is not facing a political

crisis, or a health crisis, or a poverty and population crisis. It is a moral crisis.... The question is, do we have the moral conviction, the moral courage and the political will to change our ways."[1] The change, in my opinion, is to move back to the 60s.

Back to buildings built with real (read "not wood pieces or dust stuck together with glue") wood. Back to an age without the literally millions of chemicals which have been introduced to our world in the name of progress. We need to be kind to the Earth and kind to ourselves. If we do not, the price will be too high as more and more employees are forced to leave the workplace due to poor health and for some, total disability.

Very conservative estimates admit that at least 15 per cent of our population is adversely affected by environmental pollution. A recent *Health Promotion Survey* (1990) by Health Canada indicates that 81 per cent of Canadians believe that their health has been adversely affected to some degree by pollution.[2]

Indoor air pollution is a serious environmental health problem since people spend an average of 90 per cent of their time indoors.[3] A Toronto study by R. W. Bell indicates that the level of contaminants indoors are at least two to five times higher than ourdoors.[4] The World Health Organization estimates that 30 per cent of homes and buildings today contain enough indoor pollutants to cause health affects that range from a sniffle to more serious health problems.

The benchmark used to assess indoor air quality in buildings -ASHRAE *Standard* 62-1989[5] - is based on the premise that 20 per cent of a **healthy young adult male** population will react adversely at the levels set by the standard.

Many people today are suffering from the effects of pollution and have been referred to as the "Canaries in the coal mine". Heed the message. People are dying from or being totally disabled by exposure to poor air quality. Does it have to be you before you take action?

What Are Environmental Sensitivities?

Environmental sensitivities occur when some individuals become unable to tolerate exposure to common substances in their everyday surroundings or environment.

Some substances that may act as triggers:

- Harmful substances, either naturally occurring or synthetic, in our air, water, food, personal and home care products, fabrics, furnishings; hospital, school and office equipment and supplies; building materials; and chemicals used or stored in the home, health care facilities, schools, workplaces, farms or industries and public transportation vehicles.

- Natural substances such as pollens (grass, trees, plants and weeds), dusts, molds and animal danders.

- Foods.

The severity of symptoms can range from mild discomfort to total disability or chronic health problems. Symptoms may develop suddenly or slowly. Environmental sensitivities can develop in individuals of any age regardless of whether they have a past history of allergies.

Environmental sensitivities can be progressive. Prevention, early detection and treatment are therefore of paramount importance. Treatment of environmental sensitivities focuses on ***prudent avoidance of offending agents,*** appropriate nutrition, supportive counselling and other medical interventions.

Some of the behavioural signs of food and chemical sensitivities which may be observed include:

- Overactivity.
- Fidgeting.
- Irritability.
- Aggression.
- Underactivity.
- Drowsiness and exhaustion.
- Depression.
- Poor concentration.
- Easy distractibility, distracting others.
- Inconsistent performance in speech, writing and coordination.
- Difficulty problem-solving.
- Mood and personality changes.
- Recurrent absences from work.

The physical changes which one's body can undergo due to poor indoor air quality can include:

- **Brain and Central Nervous System** - headaches, extreme tiredness, dizziness, fainting, mood swings, confusion, depression, hyperactivity, memory problems, loss of coordination, seizures.
- **Systemic Reactions** - anaphylactic shock, uticaria, eczema.
- **Eyes** - infected, itchy, red, watery or puffy, visual problems.
- **Ears, Nose and Throat** - frequent infections; itching, ringing ears, red earlobes; sneezing, itchy, irritated, blocked, runny or stuffy nose, "allergic salute" (pushing nose up with palm of hand); irritated, hoarse throat, laryngitis.
- **Mouth** - metallic taste, dryness, cracking, excessive saliva, skin peeling or blistering.
- **Lungs** - infected, coughing, wheezing, tightness, breathing difficulties, asthma.
- **Skin** - cold, itchy, cracked, red, bruised or swollen; hives, rash.
- **Muscles, Bones and Joints** - stiffness, aches, pain, weakness, swelling, muscle cramps, "arthritic" symptoms.
- **Digestive System** - nausea, cramps, bloating, gas, diarrhea or constipation, irritation, food cravings, weight loss or gain.
- **Urinary and Reproductive Systems** - cramps, infections, itching, burning, urinary urgency or frequency.

Sources of Indoor Air Pollution

Many sources of contaminants in our indoor environments are found in the workplace as well as our homes. Common contaminants include:

- Synthetic materials, especially carpeting and underpadding.
- Cleaning products, except those which are non-toxic, environmentally friendly and free of volatile organic compounds.
- Bactericides, herbicides, fungicides and pesticides.
- Petrochemical (including exhaust) fumes.
- Humidification systems.
- Humid and wet environments.
- Heating and cooling systems.
- Computer terminals and printers (particularly bubble-jet and laser).
- Photocopy machines.
- Laminating machines.
- Scented products (including scent-laden clothing).
- Tobacco smoke (including smoke-laden clothing).

Ventilation systems often fail to exhaust or

dilute unavoidable contaminants and to deliver good quality air. Moreover, many air intakes bring in contaminated outdoor air from avoidable sources such as tarred roofs, parking lots, ventilation outlets, etc.[6] With reduced operating budgets, many building owners are deliberately lowering the air exchange rate, especially during the winter months. **The result of indoor air pollution is lost days due to illness and a decreased ability to learn and work in an increasingly polluted indoor environment.**

What Employers Can Do

- Listen to your employees' needs and do your best to provide reasonable accommodation.
- Establish and enforce a no-smoking and no-scented product policy (this also means, no smoking outside of the entrance to your building!).
- Provide carpet-free offices.
- Provide "tolerated" furniture which is at least 2 years old - or purchase second-hand solid wood furniture rejected in the 70's.
- Use "tolerated" cleaning products which are earth and people friendly.
- Upgrade dusting and vacuuming routines.
- Ensure that the office environment is accessible to all by:
  - eliminating pesticides, bactericides, fungicides and herbicides in and around office buildings;
  - providing offices with openable windows for sufficient natural light and fresh air;
  - installing electronic ballast for fluorescent fixtures;
  - using full-spectrum lighting;
  - installing directional vertical blinds;
  - scheduling painting, roof repair and renovation projects during a sensitive employee's holiday time; if major renovations are required, consider moving to alternate accommodations during the renovations and allow sufficient time for off-gassing before returning to your old location;
  - maintaining and cleaning efficient heating and ventilation systems;
  - locating photocopiers, laser printers, office supplies and other pollution sources in specially vented (outdoors) rooms with automatic closure doors.

By taking responsible, "moral" action now, employers may actually help to prevent the development of sensitivities in other employees. It is essential that employees and employers work together to develop the best possible workplace for **all** employees.

If you are interested in picking up the challenge for better indoor air quality in the workplace, the Allergy and Environmental Health Association (AEHA) would welcome your participation on our Education Committee to develop educational materials and provide speakers to educate the public on this growing problem. Donations are also welcome. Call Elizabeth Stutt at 825-8388 or write AEHA Ottawa, P.O. Box 33023, Nepean, Ontario K2C 3Y9.

The Association has developed an information package for children entitled "Accommodating the Needs of Students with Environmental Sensitivities". This information package includes: (1) a report documenting the effects of indoor air pollution on children's learning, behaviour and health, with guidelines for the prevention and/or reduction of indoor air quality problems; (2) a brochure; and (3) the text for a five-minute oral presentation suitable for

copying on transparencies. The package is available at a cost of $10.00 from AEHA Ottawa Branch, Attn.: Education Committee, P.O. Box 33023, Nepean, Ontario K2C 3Y9.

About the Author:
***Elizabeth Stutt** is President of the Ottawa Branch and National Education Committee Chair for the Allergy and Environmental Health Association.*

*Drawing by **Linda Phillips**, a member of the Ottawa Branch of the Allergy and Environmental Health Association.*

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1 Maurice F. Strong, "Challenging the plight of children: 'no time to lose'", *Global Child Health News & Review*, No. 1, 1994, p. 2.

2 Premier's Council on Health, Well-being and Social Justice, *Wealth and Health, Health and Wealth* (Toronto: May 1994), p. 34.

3 United States Environmental Protection Agency, *Environmental Hazards in Your School: A Resource Handbook* (Publication #2DT-2001, October 1990) (Washington, DC 20460), pp. 12-14.

4 *Ibid* and R. W. Bell, *et al., The 1990 Toronto Personal Exposure Pilot (PEP) Study* (Toronto: Queen's Printer for Ontario, 1991), p. 11.

5 American Society of Heating, Refrigeration and Air-Conditioning Engineers, Inc., ASHRAE STANDARD 62-1989: *Ventilation for Acceptable Indoor Air Quality* (1791 Tullie Circle, NE, Atlanta, GA 30329).

6 United States Environmental Protection Agency, *op.cit.*

PRODUCT INFORMATION

ARE THE VACUUM CLEANERS ESPECIALLY FOR "ALLERGIC" WORTH THE MONEY?

In a word, probably not.

Regular vacuum cleaners can retail for under $300. The vacuum cleaners which are touted as beneficial for allergic individuals usually start at over $1,000; and that is a lot of money.

Dr. Frederic de Blay, Hospices Civils Hopitaux, Strasbourg, France purchased the five brands of vacuum cleaners which advertise as helpful to allergic individuals. He also purchased the most inexpensive vacuum he could to use as a comparison or "horrible example".

Many research facilities have what is known as a "clean room". These are specially designed rooms, usually constructed of stainless steel. It is possible to empty them totally of any particles, do an experiment of some kind and, as in the case of Dr. Blay's experiment, to measure any particles which resulted from the experiment.

Dr. de Blay placed cat dander into the dust collecting bag of each vacuum cleaner. He took one of the vacuum cleaners and placed it in the "clean room" and ran it for 15 minutes, then measured the amount of cat dander present in the room. After cleaning the room, he performed the procedure with the next vacuum cleaner. He did this with all six vacuum cleaners.

For the second phase of his experiment, he used his living room. First he measured the amount of cat dander in the room. He vacuumed for 15 minutes and then re-measured the cat dander. The vacuum cleaners which had distributed dander into the "clean room" did so even more dramatically in the living room.

The vacuum cleaners which pased the test are the Nilfisk with HEPA attachment, Kirby and Miele. Even better than those was the cheap no-name brand!

For the money, it is probably best to purchase a central vacuum. This can exhaust the allergens right out of the house without concern about the efficiency of the filter. A bonus is that a central vac adds value to your home.

Reference: Abstract #676, American Academy of Allergy Meeting, March 6-11, 1992.

Reprinted with permission from *Allergy & Asthma Informatin Association*, Vol 23, No. 3, Summer '92, 65 Tromely Drive, Ste. 10, Etobicoke, Ont. M9B 5Y7.

OUTDOOR AIR

AERIAL SPRAYING OF Btk

In the Springs of 1993 and 1994, Agriculture Canada decided to spray Formula 48B, which contained Btk (Bacillus Thuringiensis Berliner Var. Kurstaki) in an attempt to control gypsy moths.

Just prior to the 1994 spraying, the Ecological Health Alliance presented documented evidence to the Environmental Appeal Panel (set up by the Provincial Government):

1. That there are immune-suppressed and debilitated residents living in and around the spray area, i.e.: people susceptible to allergies, asthma, bacterial and fungal infection, chemical exposures etc.

   "Microbiology, Basic Principals and Clinical Applications", edited by Noel R. Rose, MD., Ph.D., Johns Hopkins University, and Almen L. Barron, Ph.D., University of Arkansas for Medical Sciences, p.5, states "...under the proper conditions, virtually all of them (bacteria) are potential opportunistic pathogens, especially in debilitated patients." Debilitated, young and old individuals live in this and other urban settings, who have been at risk from exposure to the various bacteria in Foray 48B.

2. That people with a pre-existing condition are susceptible to illness from the urban spraying of Foray 48B.

3. That previously healthy people have experienced first time allergies and asthma from Foray 48B exposure.

   It is known that previously healthy young adults have suffered from exposure to Btk

formulas and that Btk was cultured from infected sites. Documented occurrences of Btk infection in healthy individuals include a young male farmer who developed a corneal ulcer following exposure and a laboratory worker whose finger became badly infected by a combination of Btk and a bacteria common to human skin.

4. That there are well known allergens in Foray 48B, i.e.: viable spores of bacteria, yeasts and molds.

   Formula Foray 48B is not manufactured under a sterile process and virtually any bacteria can be in the final formulation. Known pathogens as streptococcus, staphylococcus and pseudomonas species are allowed in Foray 48B. Foray 48B batches contain living yeasts, molds and diverse bacteria, which have been readily cultured. (Novo Nordisk information, legally acknowledged by Agriculture Canada.)

5. That bacteria, pathogenic to the general population, are allowed in the formula.

6. That opportunistic bacteria are allowed in the formula.

7. That previous studies have warned of possible harmful effects when humans are sprayed in this manner.

8. Other sprayed communities we are aware of have reported ill-health which residents attributed to the spray programs, including: Vancouver, Oregon, Washington, and Sault St. Marie.

As a result , the 1994 Environmental Appeal Panel for Victoria/Saanich warned that the spraying of Foray 48B could cause symptoms of ill health in the exposed population. Warnings were issued to the public 2 or 3 days before spraying by Agriculture Canada, following the panels hearing of evidence related to previous and potential harmful effects.

AFTER SPRAYING

62 people reported symptoms of ill-health in relation to the spray program to the Ecological Health Alliance on a voluntary basis. Specific symptoms were not solicited; only recorded as received.

Summary of Recorded Symptoms:

A. Human Health Effects:

There was a predominance of respiratory tract distress reported in relation to exposure to Foray 48B, 114.5%. 77.4% suffered digestive disorders and 71% of the people were very sick with unusual cold/flu-like symptoms; 64.5% had emotional responses to the spray program, 56.5% reported brain and nervous system disorders, and 3.2% almost died. Other symptoms, 30.6%; allergies, 22.6%; skin problems, 17.7%; systemic infection, 8.1%; and anaphylactic shock, 1.6% were also reported in relation to the Foray 48B spray program.

All individuals reporting symptoms believed that their ill-health was a direct result of the spraying. Men, women and children were adversely effected.

B. Environmental Effects:

Diminished wildlife was noted by field observers following all sprays to a 1.5 kilometer radius around the sprayed area. Many previously resident species were not visible following sprays. Flora and fauna, including the life of the soil itself was badly effected. Ladybird beetles, honeybees and earthworms have been noted for their absence following the spraying of Foray 48B.

The conclusion of the Ecological Health Alliance is that:

- There is no basis in fact to assume the safety of Foray 48B in this type of application, i.e.: urban spraying.

- Urban aerial spraying of Foray 48B provides an unacceptable risk to human populations and to the environment and should not be considered as an option.

V. Kathryn Young

For the Ecological Health Alliance, (which has just joined the AEHA as a branch), 1019 Lodge Ave., Victoria, B.C. V8X 3B1.

THE TIIREAT OF LAWN CARE PESTICIDES:
Increasing use & increasing uncertainties

In the third report to U.S. Congress on lawn care pesticides in just so many years, the GAO (General Accounting Office) reiterates the conclusion that the risks from lawn care pesticides are uncertain and the answers may not be at hand any time soon.

The GAO notes that the EPA has generally regarded risks to the public from pesticides applied to lawns as very low. However, Congressional and public concerns have forced attention on the human health effects with a particular focus on children.

The GAO recommends that the EPA place a high priority on developing post-application testing and assessment guidelines to study the health effects of human exposure. The estimated completion date for these guidelines is 1997.

According to the 1993 GAO report, the use of lawn care pesticides is widespread and increasing. EPA estimates that 40% of all lawns are treated with pesticides. These chemicals account for 70 million pounds of the total 1.1 billion pounds of pesticides used annually in the United States. This total excludes wood preservatives, disinfectants, and sulphur. Of those pesticides applied to turf, 32 million pounds were used by homeowners and 38 million were used for commercial application to lawns, golf courses, and grounds maintenance.

44 pesticides make up the majority of pesticides applied to lawns. This number is up from 34 pesticides identified in a previous GAO report. The revised number is based on new survey data EPA obtained on consumer and professional use in 1991.

Of these 44 pesticides, 18 are considered major lawn care pesticides. They account for 90% of all treatments and 80% of the total pounds applied for lawn care. They are in about 4,000 pesticides, 53% of which are used for turf.

Thirteen of these lawn care pesticides have been found in groundwater. Four of these chemicals are potential carcinogens: Atrazine, Chlorothalonil, Oryzalin, and Pendimethalin. Chlorothalonil is a fungicide; the balance are herbicides.

Two of the most widely used pesticides, 2,4-D and Diazinon, have been under review for carcinogenicity and neurotoxicity, respectively.

2,4-D was first registered in 1948. Today, 60 million pounds are used per year -- 10 million on residential lawns. Of the 574 products with 2,4-D, 441 have lawn and turf use. The herbicide was placed on Special Review in September 1986 based on evidence of increased cancer risk among farmers handling similar herbicides, phenoxys. In 1989 EPA decided not to act on 2,4-D until two epidemiological studies in progress at the National Cancer Institute were complete and reviewed.

While awaiting the research findings, EPA asked 2,4-D registrants to "voluntarily" implement risk reduction and educational measures in exchange for not suspending product registration. The labels on products formulated after June 15, 1994, or sold by the registrant after January 1, 1995 will require:

- the use of protective clothing and eyewear by applicants;
- a maximum 2 pounds of product per acre per application, with no more than 2 applications per site per year;
- and no reentry to treated areas by people or pets until the spray has dried or dust has settled.

Diazinon was previously in Special Review because of acute toxicity to birds. It was cancelled for golf course and sod farm use in 1986. Cancellation was successfully challenged by registrants but ultimately reinstated.

Today Diazinon is prohibited on golf courses and sod farms. Research indicates that Diazinon may pose neurotoxic and/or eye risks of some concern. Despite this information, it is permitted to be used on lawns and in homes.

GAO report 93-80 indicates that the safety of many of the lawn care pesticides will remain questionable while EPA continues to re-register these products as mandated by Congress. Even then, the safety will be uncertain until scientists are able to assess post-application effects.

Copies of all three reports are available **FREE** from the *U.S. General Accounting Office,* P.O. Box 6015, Gaithersburg, MD 20877, or call (202) 512-6000.

GAO/RCED -93-80 LAWN CARE PESTICIDES: REREGISTRATION FALLS FURTHER BEHIND AND EXPOSURE EFFECTS ARE UNCERTAIN;
GAO/RCED-91-208 LAWN CARE PESTICIDES: EPA NEEDS TO ASSESS STATE NOTIFICATION PROGRAMS;
GAO/RCED-90-134 LAWN CARE PESTICIDES: RISKS REMAIN UNCERTAIN WHILE PROHIBITED SAFETY CLAIMS CONTINUE.

PHASING OUT CHLORINE

Chlorine compounds are under scrutiny by scientists and public health officials. As a class of chemicals, organochlorines are highly toxic. Many organochlorines bioaccumulate. They are associated with cancer, infertility, and birth defects. Some cause immune system disruption. Almost all cause liver, kidney, and nervous system damage. And it's not just humans. Chlorine compounds are linked to deformities and infertility in wildlife.

The 11,000 plus organochlorines are everywhere -- in plastics, pesticides, solvents, and bleaching agents. Chlorine is used in making 96% of all pesticides, 85% of all drugs, and all computer chips.

The alarm was initially sounded by Greenpeace with the 1991 publication ***Chlorine: The Product is the Poison.*** More recently the American Public Health Association (APHA) passed a resolution calling on industry to either prove chlorine compounds are safe, or to eliminate them as substitutes are found. APHA has specifically asked for a reduction in the use of chlorine in two areas: in the pulp and paper industry, and in the class of chemicals that are known to deplete the ozone layer.

The APHA resolution came as the U.S. Congress is considering legislation that would halt the use of chlorine in the pulp and paper bleaching processes. The Chlorine Zero Discharge Act of 1993, H.R. 2898, would amend the Clean Water Act to phase out, in five years, the discharge or release into water of any organochlorines formed as a result of chlorine-based bleaching in the pulp and paper manufacturing process. It would also require EPA to submit a report to Congress identifying other sources or organochlorine pollution with recommendations for reducing or eliminating those discharges through pollution prevention.

Specific organochlorines, including DDT and PCBs have been severely restricted or banned. The 1990 Clean Air Act amendments will phase out the production of chlorofluorocarbons (CFCs), carbon tetrachloride, and 1,1,1-trichlorocarbons. Chlorine use in the pulp and paper industry and the organochlorine by-products of dioxin, furans, and chloroform may be the next to go. For a copy of the APHA resolution, contact: the *American Public Health Association, 1015 Fifteenth Street, N.W. , Washington, D.C. 20005*, or call (202) 789-5600.

Reprinted with permission from *The Delicate Balance*, 1100 Rural Ave., Voorhees, N.J 08043, (609) 429-5358.

WINDS OF CHANGE

We're all connected,
though each stands apart;
So much in common,
like the beating of our hearts.
We breathe the same air and
we share the same earth.
We all need careful nurture
to thrive right from birth.
And though some say
we're made of different clay,
heartbeat to heartache...
we're the same.

Today we all live
In a chemical sea.
Synthetics for progress
and cancer for free.
Each one of life's problems
has a magical pill,
but herbicides and pesticides
they're all made to kill.
Oh, but some say,
change is coming our way,
heartbeat to heartache...
we need change.

Earth, we are your children,
All nature is our kin.
Through this world
we are now building,
let the winds of change sweep in...
Let some healing begin.

Tell me what is the value
you place on your health?
Can you buy clean air and water
with all of your wealth?

Those who now feel the earth's pain,
we cry out: "No more!"
For us this lifestyle's a poison;
It shakes us to our core.
Oh, please say change
is coming our way,
heartbeat to heartache...
we are in pain.

Like canaries in coal mines
we're calling.
Oh, when will others hear?
One by one we falter,
we're falling.
Danger lies so near.
How can it not be...

Clear we can't continue
this chemical craze.
We use and abuse them,
then throw them away.
Will our race have a future?
Where else can we go?
For the earth and for us
It's time we start to say no
or one day we will all pay,
heartbeat to heartache...
send the winds of change.

Earth we are your children.
All nature is our kin.
Through this world
we're now building
Let the winds of change sweep in...
Let some healing begin.

By Gail Bauman and Marianne Morris

Reprinted with permission from *The Ecological Health Alliance*, 1019 Lodge Ave., Victoria, B.C. V8X 3B1

SCHOOLS

HEALTHY SCHOOLS

The perils of permanent marking pens

If you're like me, you probably have at least one permanent marker tucked away in your desk and maybe even a box of coloured ones stashed elsewhere. These pens are great because they'll write on any material and won't wash off. But unlike their safer water-based cousins, which will wash off, they are organic solvent-based. And that's the problem. When was the last time you asked yourself "what could be the health impact of a lifetime of exposure to organic solvents?" The answer, according to Joseph Rodricks in his book *Calculated Risks*, is "slow poisoning."

There isn't enough solvent in a marking pen to act as a fast poison or we'd all be dead. But all organic solvents are toxic under the right conditions and can cause adverse health affects. Are you at risk? To decide this you must know, first, what kinds of injury can result; second, how much exposure over time will put you at risk; and third, what the possible exposure conditions are.

The organic solvents lurking in permanent markers are either the aromatic hydrocarbons toluene and xylene or methyl alcohol. Breathing in too much of these is a concern (inhalation is the main route of entry), and so is using these pens to write on your skin (Hey! Don't roll your eyes, people do this). Xylene, toluene and methyl alcohol can all be absorbed right through intact skin. If you have to choose among these, alcohol-based markers are safer than those containing aromatic hydrocarbons. They still, however, produce vapours that may cause adverse health effects.

These solvents are central nervous system depressants. At low doses, they produce headaches, nausea, vomiting and dizziness. In large amounts , exposure to toluene and xylene may cause narcosis (drowsiness) and damage to the upper respiratory system, kidneys and liver. They may also irritate your eyes and mucous membranes. Both toluene and xylene are especially irritating to the skin because they dissolve its waxy layers, thereby increasing absorption and causing local irritation.

Xylene is toxic to an embryo or fetus at doses that are not toxic to the mother. You find this kind of information on a material safety data sheet under the teratogenicity and embryotoxicity section. Oh, by the way, under this section it also says that there is insufficient information but, well, xylene may also reduce fertility.

But here is the crux of the slow poisoning concern: with repeated or prolonged exposure to organic solvents you may develop allergies or become chemically sensitive. Here is how it happens. Although you may not have any physical reaction the first time you are exposed to a substance, your body is nevertheless sensitized to it so that you do react on subsequent exposure. The cause of the allergic response is often not readily identifiable. Multiple chemical sensitivities develop over time as a result of doses far below the standards set for protection of the general population, usually as a result of some initial acute exposure. At the present time, such sensitivities affect approximately 10% of the population, and scientists predict that the number of people affected will increase.

Standards have been set for maximum exposure to these solvents over an eight hour working day. Supposedly, these standards protect most adults. They do not, however, apply to children (Health and Welfare Canada says that permanent markers are not to be used by children under 12), old people, pregnant women or people with pre-existing health problems like asthma, all of whom are at greater risk. Exposure standards also don't take into consideration multiple chemical exposure or whether you have had previous exposure and, if so, at what dose.

When you are assessing whether you are at risk you should also consider other conditions under which you might be exposed to these solvents. For example, toluene and xylene are two of the chemicals that modern building materials off-gas. Regularly spending time in rooms filled with tobacco smoke may exposure you to xylene. Even gassing up your car may lead to exposure since premium unleaded gas has anywhere from 10-22% xylene. According to the US International Trade Commission, Canada produced 345 thousand tonnes of xylene in 1987, while the US produced 2772 thousand tonnes (production quantities of toluene are similar). Xylene is used to manufacture a wide range of products, from perfume to plastic. Toluene, like xylene, is contained in a long list of consumer products from nail polish to paint thinner. What does all this mean? It means that your marking pens may not represent your only exposure to these solvents.

How much exposure to these solvents will produce adverse health affects? Are you at risk? Every individual is different and these are not easy questions to answer. But if you're like me, you'll never look at permanent markers the same way again. You may even switch entirely to water-based pens...and hope it doesn't rain.

Lynda Cuddy is an art safety consultant in Vancouver, British Columbia.

Reprinted with permission from *Green Teacher*, Dec 93/Jan. 94, 95 Robert St., Toronto, Ontario M5S 2K5, 416-960-1244.

BOOK REVIEWS

Gorman, C.A. - **Less-Toxic Living**. Environmental Health Center, Dallas, TX. 6th edition. 1993. 96 pages. $12.00 (soft cover) from the American Environmental Health Foundation, Inc., 8345 Walnut Hill Lane, Suite 225, Dallas TX 75231-4262. (800) 428-2342.

This little book is a compendium of well-researched suggestions and sources for non-chemical and least-toxic options for everyday functions. Designed for patients at a detoxification clinic for chemically injured and hypersensitive patients, it contains good leads for anyone seeking to avoid toxic exposures.

Less-Toxic Living covers food preparation, personal care, cleaning agents, building and home improvement, insects, household and office materials, and environmental testing. Packed with product names, 800 numbers, and generic ideas, yet with minimal explanation, the booklet exemplifies a keep-it-simple philosophy.

Excerpted from NYCAP News, P.O Box 6005, Albany N Y. 12206-0005.

Harpur, Tom. The Uncommon Touch: An Investigation of Spiritual Healing. Toronto: McClelland & Stewart, 1994.

This book about the laying on of hands for healing (or therapeutic touch) has a very gentle tone. The author (an ordained Anglican priest), has found that all of us have an inarticulate longing for wholeness or healing that is not satisfied by the preaching and teaching of organized religion. He says that in Canada, more and more Anglican, Roman Catholic and United churches recognize this need and hold healing services. At some point in the service, participants are invited to come up to the priest or layperson who briefly puts his/her hands on their head and says a prayer. People report that it makes a great deal of difference in how they lead their lives. It seems to give them a sense of peace.

It seems that the laying on of hands involves an energy transfer which is not yet explainable in scientific terms. Several scientists have been studying this phenomenon and have been able to verify statistically significant cure rates on wounds.

In England, some hospital pain centres and cancer centres as well as general practice clinics have spiritual healers on staff. The government's National Health Plan covers such services. In North America, Dolores Krieger has been teaching thousand of nurses therapeutic touch. Several Canadian hospitals offer the services of such nurses.

Betty Auslander

Krohn, J., F. Taylor, E. Larson. The Whole Way to Allergy Relief and Prevention. A Doctor's Complete Guide to Treatment and Self-care. Vancouver: Hartley & Marks Ltd., 1991.

This 290 page book is written for both lay people and doctors. It is a comprehensive report on what is currently known about allergies and sensitivities. It describes the ways our allergies and sensitivities are related to:

1. Our immune, endocrine, nervous, electrical and digestive systems.

2. **Infections**: allergies or sensitivities can develop following a severe viral, bacterial, fungal or parasitic infection.

2. **Dental Health:** "Amalgam (silver) fillings in the teeth can lead to health problems. The mercury leaking from these fillings is extremely toxic to the body and can be responsible for numerous adverse symptoms. Root

canals can also be a hidden source of problems as toxins from minute remaining areas of infection are released."

The authors describe 12 different ways of testing for allergies and sensitivities. They also discuss many ways of treating allergies including rotation diets, nutritional supplements and detoxification baths (using vinegar or epsom salts).

The book lists common chemical sensitivities, inhallant allergens and allergenic foods. There is a very comprehensive section on "Sugar and all things sweet".

Betty Auslander

Lawson, Lynn. **STAYING WELL IN A TOXIC WORLD: Understanding Environmental Illness, Multiple Chemical Sensitivities and Injuries, and Sick Building Syndrome.** The Noble Press, Inc., 213 W. Institute Place, Suite 508, Chicago, IL 60610. (312) 642-1168.

This is the best popular book I have seen about our unconsenting toxic exposures in the modern world, how these assaults are allowed to continue, and what we can do to avoid them. Despite its title and its excellent advice and referral sections at the end of chapters, *Staying Well* does not belong to the self-help genre. Instead this work paints a complex picture of the failures of our civilization, and engages us to become part of the solution, whether we have become sick or still seem to be well.

Lawson is an award-winning essayist, and she knows how to hold our interest. Her extensive research and the far-reaching scope of her subject matter make for fascinating, if at times frightening, reading. *Staying Well* will motivate the eager reader to explore further. Don't be daunted by the length of this volume; you can read a section or two at random...if you can put it down.

Excerpted from NYCAP News, P.O. Box 6005, Albany, N.Y. 12206-0005.

Lanctot, Guylaine. **LA MAFIA MEDICALE, 1994.**

In this 253 page critique of the medical system, an accredited Quebec physician charges that it is the pharmaceutical companies who benefit mainly from our health care system - not the patients. The highly profitable drug industry quietly controls the health system - by funding much medical research; through huge advertising expenditures; and by rewarding doctors with trips, consulting fees and perks.

The result is that most of the medical profession focuses primarily on treating sickness with drugs. The author thinks this is not the best approach to achieving good health. She would focus first on healing the body, emotions and spirit. Drugs would be a last resort.

She is critical of medical establishment's witch hunts of alternative practitioners who do not prescribe drugs and are potential threats to the drug companies' profitability.

Betty Auslander

Matsen, John. **EATING ALIVE - PREVENTION THRU GOOD DIGESTION.** Vancouver: Crompton Books, 1987.

I chuckled frequently at the cartoons in this wonderful book written by a B.C. naturopath. He describes how our health and digestive organs are affected by what we eat. He clarifies how naturopaths can determine what kind of a diet can help restore a patient's health.

His main recommendation for getting our digestive systems functioning as they should is

to:

1. Never eat foods in Group I i.e. coffee, tea, chocolate, white sugar, alcohol, artificial sweeteners and preservatives, salt and tobacco.

2. Group II foods should usually be avoided. These include baking yeast, peanuts, brown sugar, cow products and pork.

3. A person with any signs or symptoms of disease should avoid Group III foods. This group includes wheat, tomatoes, brewer's yeast, mushrooms.

4. A person with a major disease should be tested to see if any of the following cause problems: lamb, beef, chicken turkey, eggs, shellfish, fish, soya, lemon, oranges, grapefruit, pineapple, apples, bananas, peaches, currants, raisins, apricots, strawberries, potatoes, squash, rye, oats, rice, corn, alfalfa, eggplant, carrots, cabbage, broccoli, cauliflower, celery, cucumbers, peppers, turnips, walnuts, cashews, brazil nuts, honey, maple syrup, molasses, raw sugar, curry, garlic, vinegar, onions.

Betty Auslander

Riley, Becky. **"GETTING PESTICIDES OUT OF OUR SCHOOLS"**

NCAP is pleased to announce the availability of a new NCAP information packet entitled *Getting Pesticides Out of Our Schools.* This 30-page packet is intended for parents or teachers interested in working with their school administration to reduce school pesticide use. It intends to offer a summary of relevant materials, with references and a large resources and referrals section for those wanting more information and assistance. This packet is priced at $5.00 postpaid, with bulk rates available upon request.

The packet starts with an overview of the problems with pesticides, and then moves on to summarize the special risks that pesticides pose to children. It details the risks of some selected school use pesticides, describes some particular school pesticide exposure incidents, and briefly discusses some of the legal issues surrounding school use of toxic chemicals. It goes on to describe the integrated pest management (IPM) approach to pest control, including what it is, schools where it is working, and cost considerations. It highlights the successful landscape IPM policy and practices being used by the Eugene, Oregon public schools. The next chapter offers suggested steps for parents or teachers to take in working with their districts, including particular questions to ask to get started. Finally, the packet offers some pest prevention and least-toxic control strategies for several common school pests.

References are provided at the end for all material cited in the publication.

Appendices include: a list of organizations, IPM practitioners and consultants, and publications; copies of statements from the National PTA and National Education Association re: school pesticide use and/or IPM; selected school pesticide exposure incidents; and a model school IPM policy for school buildings and grounds.

Send $5US to NCAP, PO Box 1393, Eugene, Oregon 97440. Bulk orders can be negotiated at considerably lower prices; call NCAP at (503) 344-5044.

Reprinted from *JOURNAL OF PESTICIDE REFORM*, P.O. Box 1393, Eugene, OR 97440.

TIP SEEKERS

Q. I am a 30-year-old female and have been told I have food sensitivities. I've been tested by an ecologist using the VEGA test. Since then, I've read about other tests used for detecting this problem (the Cytotoxic test and the ELISA/ACT test). In your opinion, which test will give me the best results?
CT

A. Dear CT:
There are many good tests that help detect food sensitivities. Although considerable confusion exists about which is the best laboratory test, most agree with the accuracy and reliability of the elimination-provocation technique described by authors such as Drs. William Crook and Doris Rapp. This technique involves eliminating whole classes of foods for several days, then adding them back noting reactions. Workable variations of this are the Coca pulse test, which does not require a practitioner, and sublingual food challenges, which are usually administered by clinical ecologists.

Some of these procedures would not be appropriate for people suffering from severe pain syndrome, or for those without the time or stamina to experiment with their diets. On the other hand, there is something to be said for experiencing the effects of allergenic foods in reproducing symptoms. The elimination-provocation technique ultimately empowers sufferers to control symptoms with simple diet changes.

There are no conclusive studies comparing the accuracy and reliability of different types of food allergy/sensitivity tests. Electroacupuncture tests like VEGA and Interro, combined with the victim's personal experience with different foods and professional counselling, have been documented to improve the lives of countless thousands. Acupuncture and homeopathy work for the great majority of people, but some do not benefit at all. The same can be said for various in-vitro tests like the Cytotoxic test, the RAST, MAST and ELISA blood tests. One thing is sure: standard skin scratch tests fail to detect food sensitivities correctly in over 50 per cent of cases. Flipping a coin in deciding on a food sensitivity is just as reliable for food allergy diagnosis as a scratch test.

In the past decade of my practice, I have been using the elimination-provocation test when appropriate, combined with the ELISA/ACT test developed by Dr. Russell Jaffe. In my opinion and experience, this is the state of the art in detecting hidden food sensitivities. The scientific literature certainly supports this approach. Please understand that this in no way invalidates other forms of testing which may work equally well for selected people. In the future, with more research, time and practitioner

experience, the question of test validity and reliability will become clearer.

Zoltan Rona, MD

Reprinted from Health Naturally, Box 580, Parry Sound, Ontario P2A 2X5 - Subscription is $19.26/yr.

Q. My sister-in-law is trying to tell me that I have a food sensitivity to eggs. I don't understand this because when I have a migraine and eat eggs, I get some relief.
S.C., Toronto

A. You need to think like a detective when you try to uncover chemical susceptibilities and food sensitivities. It may be that initially you reacted to eggs in a very obvious way - perhaps with irritability or a skin rash. When you continued to eat eggs daily, your reactions continued but became less obvious and more chronic e.g. migraines, arthritis. In short, your reactions became "masked".

Eventually you can get to the stage when the only time you feel relief from migraine is after you have eaten eggs. If you then continue to eat them, you will begin to crave them as an alcoholic craves a drink. You will then have become addicted to a substance which is harming you.

You can check this out by not eating any foods with eggs in it for a week. (It can take up to 4 days to clear the food from the body including the gastrointestinal tract and other parts of the food absorption system.) Then try eating an egg and see what your reaction is. This will tell you how seriously eggs are affecting your body.
B.A., (Toronto)

Q. Where are the least polluted areas of Canada to live?
P.B., Guelph

A. I don't have any information about Canada. Dr. William Rea, who has seen 20,000 environmentally sensitive patients over the last 18 years in Dallas, responded to a similar question on Oct. 2, 1993. He said that the following U.S. locations still seem to be good for the environmentally sensitive:

in Arizona - Prescott, Sedona, area around Flagstaff and south of Tucson;
in New Mexico - North and Central, Taos;
in Texas - Wimberly, west of Austin, West Texas, Big Red;
in Michigan - upper peninsula (north woods).

He said to avoid valleys. Generally, the higher up you are, the better. Look for where the birds can soar without moving their wings.
B.A., Toronto

Q. Does anyone know where or how I could get a glass box made? Or perhaps, plans for one?
P.B., Guelph

A. N. Golas discusses buying and making your own reading box in Coping with Allergies pp 168-169. Unfortunately, the book was written in 1979 and the Human Ecology Equipment Design and Fabrication Co. of Garland, Texas may no longer be in business. But the instructions on building are still relevant.

"The reading box consists of a shallow glass-covered aluminum box that permits the reader to be protected from the volatile components of a book while he reads. The pages are turned by means of a slender rod that is inserted through a slot along the front side of the box.

"I made one from a Bud Radio Co. AC420 unpainted aluminum chassis base which can be purchased from a radio parts store. This base is 13" by 17" by 3" deep, which is large enough for most books.

"Use a piece of window glass, single strength, 13" by 17", as a cover. The sharp edges of the glass should be dulled with sandpaper."

"Fasten the glass to the base witth steel angles along only three sides of the glass, so that the reader can slide the glass of the open face of the chassis to permit insertion or removal of the book. On this open face of the chassis (17" by 3"), cut a slot about 1/4" wide and 15" long. This slot shoujld be positioned about 1" down from the open face of the base. Cut the slot by drilling three 1/4" holes at each end and then joining the holes with a hacksaw, finishing with a file. The hacksaw blade has to be turned 90 from its normal position in the hacksaw frame."

"Make the rod from a 12" piece of 3/16" dowel, suitably pointed at one end.

"I recommend a small bag of activated charcoal to be placed inside the box tto help absorb the fumes.

"To read, place the open book inside box, replace the glass. Through the open slot at the front, slide the pointed rod separating the top page of the book from the rest of the book, then turn the page. With a little practice, it becomes easier."
B.A., Toronto

RELOCATION INFORMATION

Free relocation information on cities throughout the USA and Australia is available from me. People considering relocating, visitors, and newcomers will find detailed information about mosquito abatement practice, aerial spraying, herbiciding of streets and highways, availability of organic food, doctors treating multiple chemical sensitivity, etc.

Sherry Zuckerman
1350 Sutter #45
San Francisco, CA 94109

FOR A FREE BROCHURE on Poor School Air and a case study of a school's air quality, you can write Anderson Labs, 30 River St., Sedham, MA 02026.

GOVERNMENT ASSISTANCE

For a list of children's wax crayons, modelling clays and water paints which do not contain lead, write Health Canada, Product Safety Bureau, Place De Portage, Phase 1, Hull, Quebec K1A 0C9 or call 613-953-8088.

RESEARCH

Persons who have been chemically injured by carpet are being solicited to participate in a new study. Participants must have been tested by the Antibody Assay Laboratories and/or had their carpeting tested by Anderson Laboratories. Having both tests done would be most helpful.

This study is looking for a link between animal/human illnesses following exposure to toxic carpets.

Call Kenneth Crispin at (416) 766-9382.

UNSOLVED QUESTIONS:

Least polluted areas of Canada to live in.

Has anyone with environmental sensitivities moved to a place where the outdoor air is excellent?

TB, Guelph

PROFESSIONAL LISTINGS

PROFESSIONAL LISTINGS

We are developing lists of health professionals who work with the environmentally sensitive. If you are interested in having your name put on this list, send a letter describing the kind of services you provide to Betty Auslander, 85 Walmsley Blvd., Toronto, Ontario, M4V 1X7.

We are providing this list as a service to our members. However, each member should decide very carefully who she/he wants to work with. Inclusion in these listings does not imply endorsement by the AEHA.

MEDICAL DOCTORS IN THE CANADIAN SOCIETY FOR ENVIRONMENTAL MEDICINE

Doctors, who are members of the Canadian Society for Environmental Medicine, mainly work with patients that have environmental sensitivity disorders like multiple chemical sensitivity, asthma, hay fever, dermatatis, chronic fatigue syndrome, candida and lupus. Most of these doctors have taken extra training in this area through the American Academy of Environmental Medicine.

J. Aubry, M.D., Sturgeon Falls, 705-753-2300
P. Bright, M.D., Mississauga, 416-564-0122
E. Elliott, M.D., Dartmouth, 902-463-1525
A. Fargas-Babjak, M.D., Burlington, 905-521-2100
L. Gilka, M.D., Ottawa, 613-820-6118
J. Gerrard, M.D., Saskatoon, 306-653-3631
R. Greenberg, M.D., Vancouver, 604-733-1055
A. Haque, M.D., Regina, 306-757-6688
H, Krop, M.D., Mississauga, 416-564-0122
J. Maclennan, M.D., Dundas, 416-628-8241
R. Mickelson, M.D., Glouchester, 613-830-5764
J. Molot, M.D., Ottawa, 613-235-6734
G. Ross, M.D., Halifax 902-428-7087
G. Stiller, M.D., Tecumseh, 519-735-2128
W. Tetz, M.D., Lacombe, 403-782-3513
M. Zazula, M.D., Mississauga, 416-276-7754

ENVIRONMENTAL HEALTH CLINICS

Women's College Hospital, Toronto 800-417-7092
Randolph Clinic, Chicago 708-577-9451
Maley Clinic, Texas 903-793-1153
Nova Scotia Clinic, Halifax 901-428-7087
Tri-City Hospital, Dallas 214-381-7171

OTHER HEALTH PROFESSIONALS

H. Adirim, DDS, ND, Toronto 416-922-6866
N. Ajina, MD, ND, Vancouver 604-737-3600
F. Anello, M.D., Cambridge 519-653-3731
M. Basic, DDS, Vancouver 604-736-7455
N. Beserminji, MD, DN, Toronto 416-265-3309
R. Chan, MD, Toronto 416-223-8666
F. Chen, MD, ND, Halifax 902-492-8839
L. Christian, ND, Willowdale/Oakville 416-226-4478
D. Colson, DDS, Toronto 416-482-2133
S, Gislasen, MD, Vancouver 604-872-5999
P. Gleisberg, N.D., Battleford 306-937-2204
J.P. Grod, DC, Etobicoke 416-695-3613
B. Ihara, ND, Victoria, 604-478-1333
P. Jaconello, MD, Toronto 416-463-2911
K. Kerr, MD, Toronto 416-927-9502
I. Korman, ND, Willowdale 416-222-3175
J.W. LaValley, M.D., Chester 902-275-4555
D. Li, MD, ND, Halifax 902-492-8839
D. Manchester, ND, Kamloops 604-372-8900
J. Phillips, PSYCH., North Bay 705-476-1635
S. Pilar, MD, Vancouver 604-739-8858
A. Powell, MD, Toronto 416-469-4250
Z. Rona, MD, Toronto 416-534-8880
G. Roth, DC, ND, Toronto 416-234-1888
J. Seale, MD, Ottawa 613-830-1298
F. Shamess, DC, Victoria 604-727-9501
F.L. Stanfield, MD, Calgary 403-294-1187
H. Steele, NC, Chatham 519-354-3660
W.H. van Hoogenhuize, MD, Bradford 905-775-2976, Collingwood 705-444-1555
G. Wagstaff, ND, Winfield 604-766-3633
K. Wolch, DMD, Toronto 416-281-4746
A.A. Wood, DC, ND, Shelburne 519-925-0122
P. Yam, MD, ND, Sidney 604-656-7178

DC - Chiropractor; **ND** - Naturopath; **DDS** - Dentist

WORK RELATED CHEMICAL SENSITIVITIES

To help determine whether you are sensitive to items at work:
Occupational Health Unit, Lakeshore Area, Multi-Service Project, 185 5th Street, Etobicoke, Ontario M8V 2Z5, 416-252-6471, Ext. 229.

SOURCE DIRECTORY

BUILDERS & RENOVATORS

Arkwright Design Consultants Ltd., Toronto 416-463-8373
Green City Design, Toronto 416-691-2477
Greg Allen & Associates, Toronto 416-962-6193
Rulestone Renovations, Toronto 416-694-6016

ARCHITECTS/DESIGNERS

Greg Allen & Associates, Toronto 416-962-6193
Arkwright Design Consultants Ltd., Toronto 416-463-8373
David Leslie, Quebec 418-648-8168

CONSULTANTS

B. Auslander, Household Environmental Audits, 416-487-2061
M. Burstyn, Patient information about chronic illness 416-832-0789
A. Dow, Healthy Homes and Workplaces, Red Deer, 403-341-4710
P. Kwong, EMF Consultant, Red Deer, 403-340-8603
Lowans & Stephen, Caledon 519-940-0964
S. Savary, Home Environmental Audits, 514-733-9481
B. Small, expertise in building products that contain minimal levels of chemical irritants 416-649-1356

COTTON SUPPLIERS

Fabricland
C. McDiarmid, Born to Love, 15 Silas Hill Drive, North York, Ontario M2J 2X8
Textile Connection and Natures Clothing Co., 26 Harding Blvd., Richmond Hill, Ont., L4C 1S8, 905-508-7539
Helen Turner, Box 151, Perdue, Sask., S0K 3C0

GOVERNMENT AGENCIES

For complaints regarding paint and/or pesticides write: Product Safety Bureau, Health Protection Branch, Place du Portage, Phase I, 17th Floor, 50 Victoria Street, Hull K1A 0C9

For cosmetic complaints write: Disinfectants and Cosmetics Division, Health Protection Branch, 1600 Scott St., Holland Cross, Tower B, 4th Floor, Ottawa K1A 1B6

GRASSROOTS ORGANIZING

School Air Quality, 30 Riverdale Ave., Toronto M4K 1C3
Toronto Biotechnology Initiative 416-392-4780

INFORMATION

Consumer Health Information Service will provide lists and copies of articles on any medical problem of interest to you. 1-800-667-1999.
Green Eclipse - free referral service on healthy home products and services, Toronto 416-966-7416; Ottawa 613-788-3100.

PESTICIDE ALTERNATIVES

Canadian Organic Growers Quarterly, Box 6408, Station J, Ottawa, Ont., K2A 3Y6
Community Supported Agriculture, Box 127, Wroexter, Ontario N0G 2X0
Organic Gardening Information, 1-800-268-2000.

TRAVEL GUIDE

ACCOMODATIONS LISTING available from Human Ecology Action League, Box 49126, Atlanta, GA 30359 ($5.50 U.S.)

VOLUNTEERS NEEDED

Illness Following Exposure to Toxic Carpets 416-766-9382

MATTRESSES - MADE TO ORDER

Beam Bedding, Waterloo 519-743-3219
Ontario Bedding, Fergus 519-843-1100
Royal Mattress, Head Office 416-681-2023

BASIC READING

BASIC READING ON ALLERGIES & SENSITIVITIES

ALLERGIES

Golas, Natalie and Golos Golbitz, Francis. Coping With Your Allergies. New York: Simon and Schuster, 1979.

Krohn, Jacqueline, M.D., Frances A. Taylor, M.A., and Eria Mae Larson, R.N., The Whole Way to Allergy Relief and Prevention, Vancouver: Hartley & Marks Ltd., 1991.

Randolph, Theron G., M.D. and Ralph Moss. An Alternative Approach to Allergies. New York: Harper & Row, 1990.

CHILDREN

Rapp, Doris, M.D. Is This Your Child? New York: William Morrow and Company Inc., 1991.

Crook, Wm. G., M.D. and Stevens, Laura. Solving the Puzzle of Your Hard-To-Raise Child. Random House, 1991.

FOOD

Hurt Jones, Marjorie. The Allergy Self Help Cookbook. Emmaus PA: Rodale Press, 1984.

Crook, Wm. G., M.D. Tracking Down Hidden Food Allergies. Jackson, Tennessee: Professional Books, 1980.

Greenberg, Ron and A. Nori. Freedom from Allergy Cookbook. Vancouver: Blue Poppy Press, 1988.

HOUSE

Bower, John. The Healthy House. New York: Carol Publishing, 1991.

Dadd, Debra Lynn. Non-Toxic Natural and Earthwise. New York: Jeremy P. Tarcher, Inc., 1990.

Rousseau, Rea, Enwright. Your Home, Your House and Wellbeing. Vancouver. Hartley and Marks, 1989.

Zamm, A V., and Cannon, R. Why Your House May Endanger Your Health. N.Y.: Simon and Shuster, 1980

A BIT MORE TECHNICAL

Ashford, Nicholas, A., Ph.D., J.D., and Claudia S. Miller, M.D., M.S. Chemical Exposures-Low Levels and High Stakes. New York: Van Nostrand Reinhold, 1991.

Bell, Iris, R., M.D., Ph.D. Clinical Ecology - A New Medical Approach to Environmental Illness. Bolinas, CA: Common Knowledge Press, 1982.

Rogers, Sherry A., M.D. Tired or Toxic? Syracuse, N.Y.: Presitge Publishing, 1990.

AEHA INFORMATION RESOURCE LISTS

Available from Joanna Anderson, 356 Rankin Dr., Burlington L7N 2B4.

Chemical Exposures - General
Chemical Exposures - Technical
Chemical Exposures - Formaldehyde
Children
Food and Diet
Housing and Environmental Sensitivity
Indoor Air - Molds and Fungi
Indoor Air - Carpets
Indoor Air - General

PRODUCT/SERVICE LISTS

Also available from J. Anderson:

Carpets & Underpads
Children's Camps in Ontario
Bedding - Ontario
Respirators

CALENDAR OF EVENTS

AEHA ANNUAL GENERAL MEETING

NOVA SCOTIA

JUNE 2 & 3, 1995

****

AEHA TORONTO SUPPORT GROUP MEETING

MAY 27, 1995

10:00 a.m.

85 WALMSLEY BLVD.

TORONTO, ONTARIO

M4V 1X7

Tel: 416-487-2061

MEMBERSHIP APPLICATION

Membership including a subscription to the Quarterly is $25.00 per year.

Name: _____

Address: _____

_____

Postal Code: _____

Phone: Home: _____

Work: _____

Fax: _____

Date: _____ New:___ Renewal:___

Which branch, if any, you would like to belong to: _____

Annual membership: $25.00
Donation: _____
Total: _____

Make cheque or money order payable to: Allergy and Environmental Health Association, P.O. Box 40604, Burlington, Ontario L7P 4W1

Comments: _____

_____

_____

_____

AEHA BRANCHES

NATIONAL

AEHA CANADA
P.O. Box 40604
Burlington, Ontario, Canada
L7P 4W1
PH: 1-800-695-9271

BRANCHES

BRITISH COLUMBIA
c/o Jean Stevens
P.O. Box 1231
Logan Lake, B.C.
V0K 1W0
PH: 604-523-9965

HAMILTON-BURLINGTON
Pres: Linda DeMarchi
1510 Oakhille Drive
Oakville, Ontario
L6J 1Y5
PH: 905-336-2562

KITCHENER
Pres: Donna Keddie
513 Quiet Place #2
Waterloo, Ontario
N2L 5L6
PH: 519-885-2803

LONDON
Linda Whitlock
RR#3, Melbourne, Ontario
N0L 1T0
PH: 519-289-2440

NEW BRUNSWICK
Pres: Margaret Kelly
P.O. Box 4073
Dieppe,N.B.
E1A 6E7
PH: 506-855-4990

NOVA SCOTIA
Pres: Greg Booth
P.O. Box 31323
Halifax, N.S.
B3K 5Y5
PH: 902-477-5803

OTTAWA
Elizabeth Stutt
196 Sherway Drive
Nepean, Ontario
K2J 2G6
PH: 613-825-8388
FX: 613-725-1070

PRINCE EDWARD ISLAND
Debbite Lutz
3 Charlotte Drive
Charlottetown, P.E.I.
C1A 2N6

QUEBEC
Nancy Hamilton
1938 Perodeau
Vaudreuil, PQ
J7V 8P7

VICTORIA, BC
Pres: Katy Young
1019 Lodge Avenue
Victoria, BC
V8X 3B1
PH: 604-384-8892

WATERLOO-WELLINGTON
Pres: Colleen Crowe
11 Drew Avenue
Cambridge, Ontario
N1S 3R2
PH: 519-896-1833

RESOURCE MATERIALS

Joanna Anderson
356 Rankin Drive
Burlington, Ontario
L7N 2B4
PH: 905-637-5146

AGM FRI ,JUNE 2, 7:00 TO 9:00 pm , AGENDA TO BE SET BY ED LOWANS

SUPER SATURDAY SPEAKERS ; START AT 9:30 am JUNE 3 ,1995 AND CONCLUDES WITH THE SUPPER BANQUET STARRING

DR. REALLY SPECIAL !!

IF THERE IS ANYTHING SIGNIFICANT TO SHOW AT THE { UNDER CONSTRUCTION } FALL RIVER NS ENVIRONMENTAL CLINIC ; WE WILL TRANSPORT THE OUT OF PROVINCE PEOPLE THERE , EARLY SUNDAY MORNING

TENTATIVE LIST OF SPEAKERS

DR ROY FOX

DR WILL LaVALLEY

DR MICHEL JOFFRES

DR GERALD ROSS

MR. ROBIN BARRET

DRS. GREG BOOTH & DON BRAY DDS

I WILL BE OUT OF PROVINCE FROM APRIL 29 T0 MAY 14 . IN MY ABSENCE PLEASE CONTACT MS JUDIT RAJHATHY; PHONE 902 4665000 IF YOU HAVE THE OPPORTUNITY; COME AND STAY ,AND VISIT OUR BEAUTIFUL PROVINCE, THE LOBSTERS ARE GREAT!

HOPE TO SEE YOU ALL REAL SOON

Greg.

W.G. BOOTH DDS.,

PRES. NS BRANCH A.E.H.A

INFORMATION PACKAGE

1995

AEHA NAT ANNUAL MEETING

ACCOMMODATIONS; **ALEXANDA HALL**
KING'S COLLEGE
6350 COBURG RD
HALIFAX NS
(NO CARPETS; ; LARGE WINDOWS THAT OPEN)

MEETING ROOM **HALIBURTON ROOM AT KING'S**
(ON SECOND FLOOR WITH
WINDOWS THAT OPEN ON TWO SIDES; .
WITH MARBLE FLOORS)

COST : $30. 00 per NITE perPERSON (MINIMUM OF 20 PEOPLE)

THESE ACCOMMODATIONS MUST BE BOOKED BY MAIL; THROUGH

DR GREG BOOTH
315 PURCELLS COVE RD
HALIFAX NS B3P1C5
902 4775803

THE TOTAL AMOUNT OF $ MUST BE IN MY HANDS ,NO LATER THAN , MAY 23 ,1995

BREAKFAST @ $4.50

LUNCH @ $6.00

SUPPER BANQUET @ $12.00

ALL MEALS PREPARED BY KING'S STAFF IN CONSULTATION WITH MS JUDIT RAJHATHY ;NUTRITIONIST; SPECIALIZING IN THE NEEDS OF E I PATIENTS

VOTING AT THE ANNUAL GENERAL MEETING (AGM)

8.06 Voting of Members - Each member of and in good standing with the National Association twenty-one (21) days prior to the Annual General Meeting shall be entitled to one (1) vote by person or by proxy. In the event of vote by proxy, refer to clause 8.07 Proxy Voting Form...

8.07 Proxy Voting Form - Any member of the National Association who is entitled to a vote at a meeting of the general membership may vote by means of a proxy. The member may vote by proxy using the Proxy Voting Form and appointing another person as proxy. The person the member appoints as Proxy need not be a member, but before voting shall produce and deposit with the Corporate Secretary sufficient appointment in writing from his or her constituent or constituents. The Proxy shall be valid for a period not exceeding eleven (11) months from the date contained on the Proxy Voting Form. The form of proxy to be used shall be as follows: [see below]... Lack of conformity with the Proxy Voting Form shall not invalidate the Proxy so long as the information provided is the same. The Board of Directors decision shall be final regarding validity of Proxy votes.

PROXY VOTING FORM

The undersigned,_____, a member in good standing with the Allergy and Environmental Health Association hereby appoints_____ as proxy with power of substitution, to attend and to vote for me at _____ meeting, to be held on _____, 19____, or any adjournment thereof.

Dated this ____ day of _____, 19____.

_____ _____

Signature of Member Witness

Mail to: Allergy and Environmental Health Association
PO Box 40604, Burlington, ON L7P 4W1